VOL. III. OCTOBER, 1897. NO. 4.

THE LARYNGOSCOPE

A MONTHLY JOURNAL
DEVOTED TO DISEASES OF THE

NOSE - THROAT - EAR

EDITORS.

FRANK M. RUMBOLD, M.D. M. A. GOLDSTEIN, M.D.

ASSOCIATE EDITORS.

M. D. LEDERMAN, M.D.
New York.

S. SCOTT BISHOP, M.D.
Chicago.

W. SCHEPPEGRELL, M.D.
New Orleans.

F. B. EATON, M.D.
San Jose, Cal.

FOREIGN EDITORS.

DR. J. DUNDAS GRANT,
England.

DR. VICTOR URBANTSCHITSCH,
Austria.

DR. J. J. KIRK DUNCANSON,
Scotland.

DR. MARCEL NATIER,
France.

DR. J. K. KIMURA,
Japan.

DR. G. STERLING RYERSON,
Canada.

DR. FREDERICK SEMELEDER,
Mexico.

DR. GOTTLIEB KICER,
Denmark.

FOR CONTENTS SEE NEXT PAGE.

SUBSCRIPTION, $2.00 PER ANNUM, IN ADVANCE.

P. O. BOX 787. ST. LOUIS, MO.

OFFICE OF PUBLICATION, 3702 OLIVE STREET.

[Entered at the Post Office at St. Louis, Mo., as Second-Class Matter, in July, 1896.]

Official Organ American Laryngological, Rhinological and Otological Society, Southern Section.

Official Organ Western Otological, Laryngological and Rhinological Association.

Official Organ New York Academy of Medicine, Laryngological Section.

CONTENTS.

ORIGINAL COMMUNICATIONS.

Atropine Rhinitis. By Lewis S. Somers, M.D., Philadelphia 207
Cataphoresis in Oto-Laryngology. By W. Scheppegrell, A.M., M.D., New Orleans 212
Congenital Cleft Uvula—Report of Case. By A. H. Ohmann-Dumesnil, M.D., St. Louis. [ILLUSTRATED.] 217
Primary Syphilis of the Tonsil—Report of a Case. By Max Thorner, M.D., Cincinnati 219
Two Cases of Cerebral Complications of Otitic Origin. By Dr. Ramõn Castaneda (San Sebastian) 221
Fracture of the Base of the Skull Involving the Right Ear. By Thos. F. Rumbold, M.D., St. Louis 225
Foreign Bodies in the External Auditory Canal, with Report of Cases. By Leonard Keplinger, M.D., Waxahachie, Tex 226

NEW INSTRUMENTS.

Volsella Forceps for the Arrest of Hemorrhage in Tonsillotomy. By John C. Lester, A.M., M.D., Brooklyn. [ILLUSTRATED] 230
An Instrument for Draining the Maxillary Sinus through the Inferior Meatus 231

EDITORIAL DEPARTMENT.

EDITORIALS.

Announcement 232
Co-Operation 233
Return of Prosperity 233
Send us Notes and Items 233

SELECTIONS FROM CURRENT MEDICAL PUBLICATIONS.

RHINOLOGICAL.

The Inferior Turbinate; Its Anatomical Individuality; Its Hypertrophy and Its Degeneration 234
The Means of Defense of the Nasal Fossæ Against Microbic Infections 234
Etiology of Nasal Obstruction 235
Surgery of the Nasal Fossæ 235
Differential Diagnosis between Chronic Rhinitis and Ozena 237
Naso-Pharyngeal Catarrh in Children 237
Nasal Angeioma 239
An Operation for the Correction of a Saddle-Back Deformity of the Nose 239
Spontaneous Correction of Deviations of the Nasal Septum by the Simple Removal of the Obstruction from the Opposite Nostril. 240
Ozena Treated by the Serum Method 240
Epistaxis and Its Management 241
Fatal Hemorrhage from the Removal of Adenoid Vegetations 242
Statistics in Naso-Pharyngeal Adenoids 242
The Frontal Sinus 243
A Light Form of Psychique Excitation Following an Endo-Nasal Operation 244
Spherical Ivory Osteoma of the Superior Maxilla 244

LARYNGOLOGICAL.

Actinomycosis of the Tonsils 245
Diseases of the Nose and Throat in Relation to General Medicine 245
Peritonsillar Abscess—New Method of Opening 246
The Diagnosis of Lœffler's Diphtheria Bacillus 247
To Facilitate Intubation of the Larynx 247
Chronic Ulcerative Tuberculosis of the Fauces and Larynx—Possibly Primary 248
The Present Status of Partial and Total Extirpation of the Larynx for Malignant Tumor 248
Cancer of the Larynx 249
The Diagnosis of Laryngeal Tuberculosis 250
Submucous Hemorrhage of the Vocal Cords .. 250
Voice After Removal of Adenoid Vegetations 251
Syphilis of Epiglottis 251

OTOLOGICAL.

Examination of the Ear in Children—Hearing Tests 252
Gout as a Cause of Ear Disease 252
Deafness of Genital Origin 253
Noises in the Head 254
Giddiness and Staggering in Ear Diseases 255
Acoustic Impressions During Chloroform Narcosis 255
Atresia of the External Auditory Meatus 255
Earache 256
Operations on the Drum-Membrane and Ossicles for Improvement of the Hearing 258
Occlusion of the External Auditory Canal and Its Treatment 259
Hot Water Syringing of the Ear 261
Otitic Phlebitis of the Lateral Sinus 261
A New Method of Treating (by Digestive Ferments) Deafness Due to the Sequellæ of Catarrhal and Suppurative Inflammations of the Tympanum 262
A Case of Hemorrhage from the Cartoid in Necrosis of the Middle Ear—Operation 264
Facial Nerve Affected by Ear Disease 264
Visual Aid in the Oral Teaching of Deaf-Mutes 264
Bell's Palsy and Its Electro-Therapeutics 265
Census of the Deaf 266
Valvular Action of the Eustachian Tube 267
The Functions of the Cochlea 267

PRESCRIPTIONS.

Red-Gum Gargle 268
Hoarseness 268
Lœffler's Diphtheria Solution 268

BOOKS AND PAMPHLETS RECEIVED.

BOOKS AND PAMPHLETS RECEIVED 269

NEWS ITEMS.

An American Pediatric Society 270
Western Medical and Surgical Gazette 270
Throat, Ear and Eye Section of the Cuyahoga County Medical Society 270
Removals 270

MISCELLANEOUS.

Worms in the Nostril 211
A Remedy for Troublesome Sneezing 218
Thyrotomy in Cancer of the Larynx 220
Tracheotomy and Intubation in Measles 224
Boils in the External Auditory Canal 225

THE

LARYNGOSCOPE.

Vol. III. ST. LOUIS, MO., OCTOBER, 1897. No. 4.

ORIGINAL COMMUNICATIONS.

ATROPINE RHINITIS.

BY LEWIS S. SOMERS, M.D., PHILADELPHIA, PA.

The term atropine rhinitis is here used to designate a form of irritation of the Schneiderian mucous membrane and turbinal cavernous tissues, from the effects of atropine instilled into the eye and passing through the lachrymal canal, exerting its local influence on the tissues of the nasal cavities. When atropine is applied in minute amounts to the nasal tissues, there is produced dryness of the mucous membranes; as the amount of the drug is increased, we find, in addition to the dryness, signs of beginning irritation, the turbinal cavernous tissues becoming more red in color than normally and at the same time there is a total lack of secretion, presenting a dry, glazed appearance very similar to that seen in the first stage of an acute coryza. As the amount of atropine is still further increased, we have, in addition to the two symptoms already mentioned, a feeling of heat and discomfort in the nasal chambers, and if examination be now made, it will be found that the turbinals are congested and the secretions increased. The reflex action of the parts are lessened or entirely abolished, with loss of the vessel tonus.

When applied locally, atropine is an irritant and in small amounts stimulates the vaso-motor centers. In large amounts, when applied

directly to the tissues, the peripheral nerve filaments are paralyzed, due to a direct local action of the drug. The effects as studied by numerous observers on muscle tissue are peculiar, inasmuch as the drug first stimulates and finally paralyzes involuntary muscles, while no effect, even when used in large amounts, is seen with striped or voluntary muscles. As the venous sinuses, composing in great part the turbinal tissues, are surrounded by unstriped muscular fibers, we can readily see, from what has just been said, the effects of atropine on this portion of the nasal tissues.

In ophthalmological practice the strength of the atropine solution, generally used to produce mydriasis, is four grains to the ounce of water and but one minum is used in each eye, at the same time pressure is made with the finger over the lachrymal duct so that the solution will remain and be absorbed. It is sometimes necessary to use a number of drops of the solution in both eyes for several days, until the proper amount of mydriasis is produced. Occasionally the patient is given the solution, with directions as to the amount to be instilled into the eyes until the desired effect is obtained. Frequently no directions are given as to compressing the lachrymal duct and the larger amount of the solution escapes into the nasal cavity; the number of instillations being increased to dilate the pupil, so as to compensate for the amount lost *via* the nasal duct. In the majority of cases there are no ill results from the atropine remaining in the nasal chambers, but in a smaller proportion, either from an excessive amount of the drug being used, or from a peculiar idiosyncrasy of the patient, atropine rhinitis results.

The following case will illustrate the condition: M. P., age eleven years, female, white. Was first seen on March 30, 1897, complaining of a constant watery nasal discharge. Her mother stated that on March 6 she went to the eye clinic of a large general hospital on account of some impairment of vision. A number of drops were instilled into both eyes, which were afterwards ascertained to be atropine of the usual strength used for refractive work. No untoward symptoms were noticed until the evening of the same day when emesis occurred, without nausea, and has continued until the present time. On the following day she complained of a post-nasal discharge of a watery fluid, which was accompanied by a free anterior discharge; this was then like water and in it were masses of thick mucous. Previous to the use of the drops there had been no subjective or objective signs of nasal trouble.

On examination of the nasal cavities both sides were seen to be affected; the turbinals, and especially the inferior, were pale in color,

with that sodden appearance as observed a few days after the onset of hay fever, and they were soft and "boggy" to the touch of the probe, giving one the feeling as if the tissues were relaxed. From the surface of the mucous membrane a clear serum was transuding in considerable amounts, the nasal cavities filling immediately after the removal of the previous discharges. The mucous membrane was macerated from the excessive irritation, which had nearly passed away before I saw the case; this had extended to the muco-cutaneous junction of the vestibule, the upper lip being red and irritated from the acrid secretions. The treatment consisted in cleansing the nasal chambers with a mild antiseptic, alkaline solution followed by mentholated albolene, two grains to the ounce, the irritated areas being then covered with an ointment composed of two grains of the yellow oxide of mercury to the ounce of lanoline. Recovery ensued in a few days, no other after effects of the atropine being observed, and the nasal tissues rapidly regaining their normal condition.

This case was undoubtedly due to an idiosyncrasy to atropine, being analogous to the effects seen in a minority of cases when the drug produces the peculiar so-called "atropine conjunctivitis" in unduly susceptible individuals. In these cases a minute amount will produce irritation of the conjunctiva, with swelling and erythema of the skin of the eyelids and surrounding region. (Juler.) It then being necessary to discontinue the use of the drug, when the irritation promptly ceases. In persons possessed of this peculiarity of the nasal tissues, the use of atropine as a mydriatic must be stopped and the nasal irritation promptly disappears under the use of soothing local applications.

There is another condition that I have met with as the result of the excessive use of atropine instillations, occurring in children, not from any undue susceptibility to atropine, but from its continued use in the eye. In some ocular affections when a continuous mydriasis was desired and the patient allowed to use one or two drops of the one per cent. solution in each eye, three times daily for one or two weeks, we will find the condition presently to be described. In the majority of cases from the use of the drug in both eyes the nasal affection is bilateral, but in a much smaller number the solution has been used in but one eye and then the nasal changes are unilateral, occurring only in the nasal chamber corresponding to the atropinized eye. In the cases where both nasal chambers have been saturated with the atropine solution for several days, we find the turbinals enlarged from passive congestion; on the surface they are gray in color, from the sodden and macerated epithelium which comes off in flakes;

underneath the epithelial layer the cavernous tissue is a deep red, from the large amount of blood in the sinuses, their walls being relaxed and active transudation of serum taking place constantly; this with obstruction to nasal breathing being the two main symptoms complained of by the patient.

The septal mucous membrane also partakes of the same characteristics as seen in the turbinal tissue and the cavernous tissue of the septum is more or less prominent from the desquimated epithelium. The olfactory portions of the nose are unaffected as a usual rule, but a moderate amount of anosmia is sometimes observed. When the irritation is unilateral we find the same changes as just noted, the other nasal chamber remaining normal. This sub-acute form is a continuation and later stage of the acute affection as seen in the case previously described. As this form is seen by the rhinologist later in its course than the acute cases, it is impossible to accurately describe the first effects of the atropine on the nasal mucosa. I have seen a number of cases affected in this way and they all present the same characteristics, resembling to a great extent the changes and symptoms, except excessive sneezing, as observed in hay fever.

The nasal septum is never ulcerated to any depth, nor is perforation seen, but superficial areas of epithelial necrosis are constant, especially along the inferior edge and anterior cartilaginous plate. All the cases were in girls, from five to fourteen years of age, not any being observed in the male sex, and I have never found the condition in adults. The general health of the patients seemingly bearing no relation to the susceptibility to the drug, as all the children were in fair physical condition. No marked chronic changes in the nose or naso-pharynx were observed, the irritation apparently not being due to any previously existing catarrh.

With certain drugs, when taken internally, we frequently have rhinitis resulting, either from an excessive dose or from the susceptibility of the patient; as an example of this class we may take iodide of potash, in some cases a minute dose producing violent inflammation of the mucous membranes. I recall the case of a young woman, seen several years ago, in which one grain of iodide of potash produced an intense form of coryza.

Rhinitis, due to atropine, resembles to some extent those cases of hay fever caused directly by some definite object, such as certain fruits or animals, or various medicinal agents, as ipecac, sulphur and lycopodium. The condition of the nasal mucosa is very similar in these cases, inclining me much to the opinion that a close relationship exists between the two affections. Morrell Mackenzie, although

not mentioning this condition in his work on the nose and throat, describes a somewhat analogous condition under the head of traumatic rhinitis, due to minute particles of irritating substances suspended in the atmosphere and directly irritating the nasal tissues. These irritants may be in the form of vapor, as ammonia or chlorine gas, or solid particles, as the dust from various metals, etc. In traumatic rhinitis, the mere irritation is not in *toto*, sufficient in all cases to produce the irritation of the nasal mucosa, as we frequently find that of two persons subjected to the same amount of irritation, one will show no effects, while the other will have a violent coryza in a few hours, or even immediately after exposure to the exciting cause. This, of course, is what occurs in "atropine rhinitis," the minority of individuals only being affected when the drug is used for ophthalmoscopic purposes.

The eye containing the atropine is affected but slightly, typical atropine conjunctivitis not occurring when the nasal tissues are affected and in the larger class of cases the drug having no deleterious effects upon the organ of vision, while in one or two cases seen, a mild grade of conjunctivitis existed coincident with the instillation of the mydriatic, not severe enough to require special treatment and disappearing as the nasal irritation cleared away.

3554 North Broad Street.

Worms in the Nostril.

Though many causes are offered as the excitant in recurring epistaxis, the history of the case reported by Dr. H. M. Folkes in the *Medical Record*, May 8, 1897, is decidedly novel. Male negro, aged twenty-four, complained of nose-bleed and pain in the head. An examination revealed some fever, right side of face much swollen, very large nostrils, and a mass of screw-worms in the right nostril as large as a pecan. With a forceps the doctor succeeded in recovering forty-one live worms, and at a second sitting thirty-seven more taken away. An alcoholic solution of chloroform was sprayed into the nostril, and in all one hundred and thirty-one worms were removed in five days. Up to the time of the first removal the patient did not realize the nature of his disease, but when he observed the first worm he mentioned that he blew four or five of the "things" out of his nose the same morning. He had a nasal catarrh, which probably accounted for the deposit of the larvæ. M. D. L.

CATAPHORESIS IN OTO-LARYNGOLOGY.

BY W. SCHEPPEGRELL, A.M., M.D., NEW ORLEANS.

Cataphoresis is the property of electricity of diffusing fluids and substances through other fluids and substances. It is known under a variety of terms, many of which have been added since the adoption of the galvanic method of cocaine anæsthesia in dentistry. Among these names are: "electric transportation," "electric transfer of particles and liquids," "anaphoresis," "anodal diffusion," "electric osmosis," and "electric medicamental diffusion."

Some writers explain cataphoresis on the principle of osmosis. In this process, when two liquids of different density are separated from each other by a porous septum, the fluid of the lesser passes to the fluid of the greater density. This is a slow process, the rapidity depending upon the difference of density of the two liquids and the thickness and character of the intervening septum. If, however, the positive pole of a galvanic battery is connected with the liquid of lesser density, and the negative with the other, this process is so rapidly increased that in a few moments it has advanced as far as it would have done in several hours in simple osmosis.

These writers claim that when we place on the outer surface of the skin or mucous membrane a solution of greater density than the plasma within the tissue, the influence of the drug, which would be very slow or even imperceptible by the ordinary osmotic process, rapidly takes place, and in this manner we may impregnate the tissues with cocaine, iodine, guaiacol, etc., according to the indications of the case.

The theory that cataphoresis is due to a purely physical action of the current, and that all medicaments must be placed at the positive pole of the direct current, is not accepted by many investigators, such as C. M. Hanyes (1), these holding the opinion that in all cases the medicaments are decomposed by the action of the current, the products of such decomposition moving towards that pole for which they have an affinity, and while it is true, in electro-therapeutic work, that we nearly always place the medicament upon the positive pole, this is only because the great majority of substances, whose effect we wish to obtain, are electro-negative in character. This theory more fully ex-

plains the various phenomena of cataphoresis and corresponds with my investigations of this subject.

Faraday gave the name *anion* to the products of the decomposition which appear at the anode, or positive pole, and *cation* to those which appear at the cathode, or negative pole, the term *ions* being generic for both products. He believes that the anions are attracted by the positive pole, because they are the same potential as the negative, and are therefore repelled, and that the cations are attracted by the negative pole, because they are repelled by the positive, with which they are of the same potential.

This principle should be remembered in the application of cataphoresis. Iodine, like oxygen, is an anion, and has an affinity for the positive pole, and where iodide of potash or other iodine compounds are used in the treatment of goitre and the resolvent effect of the iodine is desired, they should be applied to the negative pole, so that the iodine will be attracted towards the positive. If the iodide of potash solution is applied to the positive pole, the iodine will be liberated at this pole, so that we have the local and not the cataphoric effect of the iodine.

Morphine sulphate, quinine sulphate and cocaine muriate belong to the class of bases which are cations, and therefore have an affinity for the negative pole. When these, therefore, are used, they should be applied to the positive pole, so that, in their passage towards the negative, we may obtain the effects of these medicaments. Where iodine is used on the positive electrode, its therapeutic effect is but little more than the local application of iodine.

Cataphoresis in the application of cocaine anæsthesia has recently been used very extensively in dentistry. It must not be considered, however, as a newly-discovered principle. Already, in 1859, we find in the *Lancet* (February 5th) the following report of the cataphoric application of an anæsthetic: "Some interesting and important experiments have been commenced by B. W. Richardson on the possibility of producing electro-chemical anæsthesia. A sponge impregnated with chloroform or tincture of aconite is applied in conjunction with the positive pole of the battery, and, a current being passed through the limb, it is found that the anæsthetic agent employed may be brought to bear in this way upon the deeper tissues and profound anæsthesia produced. A public demonstration of this method was given by Richardson at the Grosvenor Place School of Medicine, and the results were satisfactory as indicating the production of deep-seated anæsthesia; but the time occupied to effect insensibility was very inconveniently protracted. The further results of these experiments will be watched with interest."

In the *Medical News*, July, 1895, in an article entitled "Voltaic Narcotism," a report of the successful application of this method is also made, a molar tooth having been painlessly extracted after its cavity had been filled with a dosil of lint steeped in five minims each of tincture of aconite and chloroform, and a current of electricity passed through the part.

A number of experiments to illustrate the cataphoric effects of cocaine anæsthesia has been made by Frederick Peterson, New York (2), and may be easily repeated. In the first experiment a 10 per cent. solution of cocaine was applied to the skin of the dorsal surface of the hand for twelve minutes by holding the open mouth of the bottle containing the solution against it. No anæsthesia of any kind was produced. In the second experiment, a large sponge-covered wire netting cathode was applied to the palm of the same hand; sixteen cells of a Grenet battery were applied for six minutes without cocaine. No anæsthesia whatever followed. In the third experiment, the same electrodes and application were made, but with a 10 per cent. solution of cocaine applied to the anode. A contact for five minutes with the same strength of the battery caused complete anæsthesia to touch, pain and temperature, lasting over an hour in the surface which had been in contact with the anode.

It is known that the anode normally paralyzes the vasomotor nerves, producing congestion and edema, while cocaine has the opposite effect, contracting the capillaries, but when applied together the normal electric effect outbalances that of the cocaine, and the part under the anode remains congested.

In the next experiment the last process was repeated, except that the cocaine solution was appled to the cathode; it was followed by no anæsthesia.

The following is a summary of the results of Peterson's experiments: "The galvanic current alone does not produce anæsthesia at either pole, although the anode has a soothing effect over painful foci. A watery solution of cocaine applied to the skin is not absorbed and does not produce anæsthesia, except, perhaps, after an indefinite and long period. The same is true of chloroform and of an alcoholic solution or aconite. A watery solution of cocaine is diffused through the skin and subcutaneous tissues by the *anode*, but not by the cathode. This is true of chloroform, aconite, strychnine, potassium iodide, corrosive sublimate, tincture of iodine, and similar medicaments."

The anæsthesia produced by a 10 to 20 per cent. solution of cocaine on the anode is sufficient for small operations and affords relief for from four to eleven hours in cases of severe neuralgias in superficial

nerves, and without any untoward constitutional effects having thus far been observed.

It has been shown by Arthur Harries (3) that the region covered by the negative electrode in the cataphoric application of cocaine, so far from being anæsthetized by the solution, was actually rendered hyperesthetic, while the area covered by the positive electrode became insensitive to passage and action of needle used to electrilize the hair.

A number of experiments with the cataphoric application of guaiacol has been made by W. J. Morton (4), who has obtained satisfactory results, especially when the guaiacol was combined with cocaine. He found that guaiacol, to which cocaine had been added, enabled him to shorten the time ordinarily required to produce anæsthesia about two-thirds, and also permitted him to reduce the current strength of electricity almost two-thirds. Another important feature of guaiacol in soft tissue is that it appears to hold on chemically to the cocaine, and thus prevents quick absorption into the general circulation and consequent toxic effects. He gives the following formula for the use of guaiacol and cocaine combined, and of guaiacol alone:

℞ Guaiacol ..... ʒi.
Cocaine hydrochl. anhyd. ..... gr. vi. M.

℞ Guaiacol ..... ʒi.
Acid. sulphur ..... ♏ i.
Aq. dest ..... ♏ ij. M.
Sig.—Make emulsion.

Guaiacol is a non-conductor and cannot be used alone. Instead of using it as above, it may also be added to oil of pine, which removes, to a large extent, the unpleasant odor of guaiacol and improves its antiseptic properties. Creosote is a violent escharotic and is very irritating when used for cataphoresis, but guaiacol is creosote freed of the irritating hydroxyl.

Guaiacol possesses not only the property of anæsthesia, but is also a valuable disinfectant, and, in a number of experiments which I have made, it was successful not only in allaying the pain in tubercular laryngitis, but also of influencing, in a most favorable manner, the progress of this pathologic condition. In several cases, which I now have under observation, the result has been so satisfactory that I have abandoned the method of curettement and lactic acid, as cataphoresis has given me results so much better than this method, and without the great discomfort to the patient from curettement. I have also made use of peroxide of hydrogen by this method. When this is used, a little phosphate of soda should be added to make it a good conductor; sodium chloride may also be used, but as the chlorine is liberated, when the current is applied, it may cause considerable irritation.

In many of the published reports of the cataphoric application of iodine, as, for instance, Hunter McGuire in "Hare's System of Therapeutics," the authors specify the application of tincture of iodine or iodide of potash to the *positive* electrode. As iodide is an anion, it is repelled by the negative pole, and will, therefore, remain at the positive pole when these medicaments are applied to the positive electrode, and the effects will be little more than the local application of iodine to the surface. It should, therefore, always be applied to the negative electrode when its resolvent effects are required.

As some writers claim to have received benefit from this method, C. S. Neiswanger (5) suggests that some beneficial result may possibly be obtained from the use of the iodine at the positive pole by what might be called "secondary reaction," which may be explained by the old experiment of the glass rod and pith ball; the rod, having a positive charge of electricity, will attract the pith ball because it is of opposite polarity or different potential. But after awhile, or when the disturbed equilibrium is interrupted and the ball becomes the same potential as the glass rod, it is repelled. The same phenomenon may take place when we use the iodine at the positive pole. The iodine, being of different electric potential than the positive pole, is first drawn to it, but afterwards, by secondary reaction, or when the difference of potential is restored, it is repelled and does penetrate the tissues to a certain depth; possibly this is the secret of the good results claimed by some operators when using iodine at the positive pole. According to the law of cataphoresis, as now understood, the most penetrating effect of iodine preparations is obtained when they are applied to the negative electrode.

As showing the influence of the cataphoric application of iodine on micro-organisms, Burci and Fraseani (6) demonstrated that, with a current of 5 to 10 milliamperes for fifteen to thirty minutes, the nascent iodine, liberated by electrolysis from the positive pole, killed both streptococci and staphylococci.

BIBLIOGRAPHICAL REFERENCES.

1. Hanyes, C. M.—Elementary Principles of Electro-Therapeutics, 1896.

2. Peterson, Frederick—Int. System of Electro-Therapeutics, by H. R. Bigelow, 1894.

3. Harries, Arthur—Medical Press and Circular, December, 1889.

4. Morton, W. J.—Dental Cosmos, March, 1896.

5. Neiswanger, C. S.—The Alkaloidal Clinic, Feb. and May, '95.

6. Burci and Fraseani—Revue Int. de Bibliographie, Beyrouth, August 10, 1894.

CONGENITAL CLEFT UVULA—REPORT OF A CASE.

BY A. H. OHMANN-DUMESNIL, M.D., ST. LOUIS.

There is possibly no subject in medicine more interesting or instructive than that of teratology. And in this branch cases of various sorts of arrest of development are fraught with interest as they are always of value in throwing more light upon the normal or physiological process of development. Anomalies were observed

in very ancient times, as has been shown by Ballantyne, and they were then regarded as portents presaging limited or general misfortune of some sort or the opposite. From time immemorial these curiosities of medicine have been recorded, and in more modern times the observations made have been much more exact and satisfactory.

The older authors have recorded a certain number of double uvulas, but there is no doubt that the large majority were cleft uvulas. The entire absence of the uvula is of much more frequent occurrence than a double one. Cleft uvula has been reported by a certain number of authors, but not so frequently that the report of a new case would be entirely without interest to the profession. It is for this reason that I wish to briefly mention one which I observed some little time ago.

In examining a patient at the City Hospital, who was convalescing

from an attack of scarlatina, I desired to note the changes which had occurred in the mucous membrane of the mouth and pharynx. He presented the evidence of a rather marked catarrhal condition, the mucosa being covered with a rather thick mucous, the soft palate having a rather dark reddish tinge such as characterizes an old catarrh. The arches of the palate were well formed, but the uvula became bifurcated very high up. Each half of the uvula made a decided curve from the meridian line and both were of the same length. Upon being interrogated in regard to this peculiarity, the patient stated that it occasioned him no inconvenience, and he further volunteered the information that he was "born that way." The accompanying illustration very clearly shows the condition as it was observed. The uvula looks much whiter than the soft palate from the fact that the mucous lay on its surface in rather large drops. The position of being more to the right of the meridian line is more apparent than real.

Cleft uvula is, without doubt, a form of arrest of development very similar to cleft palate in its mode of origin. As everyone knows, the uvula has a distinct raphé, and when fusion does not take place the separation occurs, but not to the extent shown in the case here reported. There is a further peculiarity in the extreme length of the two halves. Were they fused, the patient would be very much inconvenienced by the uvula lying on the tongue.

A careful general examination, made at the time this peculiarity was noted, did not reveal any other developmental anomaly. A fair degree of intelligence existed, the features were regular, and the body and limbs well developed. The subject made a good recovery from his scarlatina and presented no ear or kidney symptoms as sequelæ. I must add, however, that the attack was a very light one. A point of some interest to rhinologists is the symmetry of the nose and nares, as being further evidence of good general development.

A Remedy for Troublesome Sneezing.

In the July number of the *Zeitschrift für Krankenpflege* Dr. Koch, of Hildesheim, says that strong pressure on the hard palate with the thumb, exerted before the close of the deep inspiration that precedes sneezing, will prevent the sneeze.—*New York Medical Journal.*

PRIMARY SYPHILIS OF THE TONSIL—REPORT OF A CASE.

BY MAX THORNER, M.D., CINCINNATI, O.

"The number of authentic cases of chancre of the tonsil on record is by no means so large as to have removed this lesion from the field of clinical curiosities."* This consideration induces me to report a typical case which I have had the opportunity of observing.

Mrs. N. N., aged 27 years, called on me September 11th, 1896, complaining of an unusually sore throat. She had taken cold, as she stated, a few weeks ago, while riding a wheel, and since then her throat had been sore; the soreness had increased in spite of treatment and all kinds of home remedies, and was at present so severe as to almost render swallowing impossible. The patient was an anæmic-looking woman, who was apparently in great pain. Upon examination it was found that the left tonsil was greatly enlarged, having on its median and anterior surface a dirty-greyish discoloration of irregular shape, and about half the size of a five-cent nickle piece, at first glance somewhat resembling a mucous patch. Upon closer examination it was found to be a superficial ulcer with dirty-yellowish base. The anterior pillar of the fauces, in fact the whole left half of the soft palate, had a deep purple color, the redness diffusely extending to the median line and somewhat into the hard palate. The sub-maxillary glands on the left side were much enlarged, especially those below the angle of the inferior maxilla, where they reached the size of a hen's egg, and were very hard to the touch. Upon palpation, it was found that there was below and surrounding the ulceration an induration as hard as cartilage.

These conditions naturally aroused my suspicion, and when I learned that since a few days a macular eruption had made its appearance upon the chest and back of the patient, which, upon examination, proved to be a true roseolasyphilitica, I did not hesitate in looking upon the tonsillar affection as the primary syphilitic lesion (so-called hard chancre), although at the time the patient denied all knowledge as to the possible cause of the trouble. A few days thereafter, she gradually acknowledged, first indirectly, by leading

*Charles H. Knight in Burnett's System of Diseases of the Ear, Nose and Throat Vol. ii., p. 600.

questions as to the possibility of acquiring such a trouble by kissing, and eventually by tearful admissions, the almost incredible fact, that some time previous to the beginning of the sore throat, her husband, in spite of having a sore, had indulged in an act of sexual perversion.

Thus the clinical picture, the history of the case, and the result of subsequent treatment made the evidence complete as to the diagnosis of primary syphilis of the tonsil. The case was also seen by Dr. Jos. Ransohoff, Dr. T. V. Fitzpatrick, Dr. A. H. Freiberg and others. The treatment consisted in mercurial inunctions and local applications of the bichloride of mercury, under which the local throat symptoms and the swelling of the sub-maxillary glands gradually disappeared. Subsequently other secondary symptoms appeared, but with the exception of the site and mode of the infection, the case did not offer anything worthy of comment.

Thyrotomy in Cancer of the Larynx.

Dr. Botey states that, in spite of the fact that laryngotomy is becoming more generally adopted, thyrotomy, or laryngo-fissure is still the best treatment of cancer of the larynx, providing the tumor is unilateral and limited to the mucous membrane, which is the case during the first four or five months (*Archiv. Int. de Laryng.*, *Nov.*, *Dec.*, *1896*). This procedure holds a middle place between radical surgery, which removes the larynx and the vocal organs in their entirety, and the absolute abstentionists, who are satisfied with fighting the stenosis by tracheotomy.

Total laryngectomy has a mortality of 94 to 95 per cent., from which its value may be judged. One of the important obstacles in the treatment of this disease is that the laryngologist is conslated too late. The larynx is especially adapted for surgical intervention; there are few lymphatics, and infection of the ganglions takes place slowly. In cancer there are two categories, the operable, which are superficial and unilateral, and the inoperable, which spread to the neighboring organs.

The author has seen 109 cases of cancer of the larynx. He has done tracheotomy only once, and thyrotomy three times, having had in the latter two cures and one relapse. The mortality from thyrotomy is not more than 3 to 5 per cent. It is advisable, however, to operate only in cancers which are intrinsic, unilateral, and limited to the laryngeal cavity; that is to say, during the first four or five months of the development of the disease. A part of the cartilage may also be resected, if this be diseased or suspected.

W. S.

TWO CASES OF CEREBRAL COMPLICATION OF OTITIC ORIGIN.

BY DR. RAMÖN CASTANEDA (SAN SEBASTIAN).

Translated from Revista de Laringologia, Otologia y Rinologia for THE LARYNGOSCOPE by DR. VINCENT GOMEZ (NEW YORK).

Visiting Ophthalmologist to the Almshouse, Workhouse and Incurable Hospitals; Assistant Surgeon, New York Eye and Ear Infirmary; Instructor in Diseases of the Ear, New York Polyclinic, Etc.

If the operative technique of the intercranial complications of otitic origin is to-day well established, it is due to modern works in this direction; but, on the other hand, we are not as yet in a position to make a precise diagnosis, and, consequently, observations in cases of this sort should be contributed in order to throw more light on the subject. It is with this object that I refer the following two cases:

First.—This was a child, seven years of age, who was brought to me on account of various nervous phenomena which followed a chronic purulent discharge from the left ear. She was not well developed, and we learn that she had not been born at full term. There were no stigmata of any kind. During the summer of 1893, she suffered from an acute purulent otitis media, produced by sea-bathing; from this she recovered in a few months. The tympanic membrane was somewhat thickened and presented a cicatrix in the postero-inferior quadrant. Last winter, after suffering from sharp pains in the left ear, there came on a suppuration, which at first was muco-purulent, but which at present is sero-purulent, together with redness and tumefaction of the tympanum and a pulsating light-reflex in the postero-superior quadrant, which indicated the position of the perforation; there was also slight bulging of the postero-superior canal wall. Some granulations were likewise present. The mastoid was not swollen, neither was there any pain. A fortnight previous to my seeing the patient, the discharge from the left ear had greatly diminished, and coincident with the diminution there came on a hemi-paresis of the right arm, with convulsive movements of the index and middle fingers of the right hand, slight headache and some vertigo. She did not present any irregularity of temperature, delirium, coma, vomiting or any other meningeal symptoms. Four days before, the right leg had become paretic. There was no hemi-

anopsia, and the pupillary reflexes were normal, but an ophthalmoscopic examination revealed venous congestion of the papilla. There was no afasia. The only psyshic symptom was impaired memory.

As the symptoms of cerebral compression in the left side were evident, and as they coincided with the diminution of the discharge from the same side, we proceeded to operate, beginning by performing Stacke's operation, as modified by Schwartze. The mastoid cells were found to be of very small size, and they contained but a slight amount of pus; the attic, however, contained considerable granulation tissue mixed with fetid and caseous pus. No direct communication could be discovered leading to the meninges, and in view of this fact, we proceeded to chisel away the roof of the tympanum, thereby uncovering the dura mater for a distance of about one centimeter. The dura was of normal appearance, and it did not bulge into the opening. With a long sterilized needle attached to a Pravaz syringe we now made various explorations in search of the pus focus in direction of the temporal lobe and towards its upper part. These attempts were all negative. In view of our failure to find any pus faci, the wound was dressed, and we postponed further operative interference to another time. Unfortunately, the child's friends would not hear of anything else being done. The wound was cicatrized after twenty-six days, and all twitching had ceased, but there still was paresis of the right leg and arm. Later on, we learned that the phenomena of compression became more pronounced and the child died within two months.

This case offers various interesting points for consideration. Doubtless there existed an abscess of recent date, which most likely was not very large, and it seems to have occupied the temporal lobe. The symptoms present indicated its position to be in the ascending parietal convulution, involving, as well, the middle third of the fissure of Rolando, or in the posterior segment of the internal capsule.

Cerebral abscesses of otitic origin are nearly always situated in the temporal lobe; frontal, parietal or occipital abscesses occur with less frequency, and their presence is considered only when the functional symptoms correspond to this localization.

In the child whose mastoid cells are rudimentary, cerebellar abscesses are rarely encountered. Both cerebral or cerebellar abscesses are always situated on the same side as the affected ear, and as a rule they will be found in the temporal lobe.

According to Broca (*Bulletin de la Societé Anatomig de Paris*, 1894, p. 561) the localization of abscesses is very difficult before intervention, and those that form at some distance away from the

carion faci generally are preceded by lesions of the surrounding dura. Surgical intervention does not always reveal that basal meningitis, but the possibility of this complication should not impede the operator from intervening.

In this case no direct communication between the focus of pus and the cerebrum could be discovered. Harmann and Garnault believe that frequently this continuity does not exist, and that the infection takes place by way of the lymphatics. Cases presenting an apyretic course have been observed by Politzer, who cites various cases in which grave cerebral symptoms appeared without being preceded by persistent headache, etc.

Before closing my remarks as to our first case, I might state that Lannois and L'abouley, in a case presented to the French Laryngological Society, advised the employment of an aspirating trocar to search for the abscess and thus avoid the inconvenience of the needles which become occluded with nervous matter so easily.

The second case which I wish to refer pertains to an army officer, fifty years of age, who had always been in excellent health, and, moreover, had never had any illness which could have brought on his present affliction. Besides, he had never suffered from any aural disease.

The writer was called in consultation, because the patient had been suffering with severe pain in the left ear for three days. He attributed his trouble to a severe cold, for which he had been treated by his physician.

The next day the patient showed signs of a beginning meningitis. On examination the patient presented a condition of general excitation with loss of consciousness. He would frequently bring his hand over the head, as if indicating the intense headache he was suffering from. He appeared to be nauseated, and the thermometer showed a temperature of 39.8C. The pulse was frequent and small; later on he showed converging strabismus, myosis and convulsive twitching of the right arm.

A speculum examination revealed a normal right drum-membrane; the left, however, showed a diffused redness with obliteration of all landmarks. Directly behind the malleus handle there was a slight bulging, indicating the presence of inflammatory exudate. A paracentesis was practiced at this point which gave issue to a sero-sanquinolent fluid which was not abundant. Notwithstanding this and an appropriate treatment of the meningitis, the patient succumbed, with all the symptoms of a general paralysis, in less than forty-eight

hours from the beginning of the first token of meningitis, and five days after the first onset of the trouble. How did this meningitis occur?

We know that meningitis, consecutive to affections of the ear, is produced in two ways: It can be propagated by contiguity, by alterations in the walls of the tympanum, producing pachymeningitis; or the propagation is established by continuity, and, without pachymeningitis, the infection reaches through the labyrinth and internal auditory canal. There remains, however, a group of lesions which cannot be thus explained, and these cases have been explained by Loewemberg, who says that micro-organisms are transported by way of the lymphatic spaces, not producing any manifestations of their action until they have become fixed. Moreover, Mangiora and Gradenigo, in their investigation upon the microbes found in the ear, have shown that the same bacilli can be found in the fluids of catarrhal otitis as in the purulent affection.

The intensity of the infection depends upon the activity of the invading microbes, and upon the bactericide action of the mucosa and the fluid secreted. Lannois attributes to the mucosa of the middle ear a certain bactericide power, although he does not say it is similar to the property possessed by the nasal mucosa as demonstrated by the investigations of Würtz and Lermoyez; for no pathogenic distinction is made between acute catarrhal otitis media and the acute purulent forms; being that the same microbes give rise to both affections.

Otitic brain complications are usually due to chronic middle-ear suppuration, but they may also be produced by acute purulent otitis, and Garnault says that it is necessary to bear in mind that even a simple catarrhal affection of the middle ear, although rarely, can produce meningitis.

Tracheotomy and Intubation in Measles.

Dr. Josias states that in measles, laryngeal complications, such as diphtheria, laryngitis stridulous or edema of the glottis necessitate tracheotomy and not intubation (*Méd. Mod., March 3, 1897*). Of five children in which tracheotomy was performed, three were cured and two died. With intubation all the patients succumbed.

W. S.

FRACTURE OF THE BASE OF THE SKULL INVOLVING THE RIGHT EAR.

BY THOS. F. RUMBOLD, M.D., ST. LOUIS.

While on a visit to San Francisco, Cal., I examined, for Dr. L. C. Lane, on July 7, 1897, a case of fracture of the base of the skull that has some points of interest.

Mrs. ——— aet. about 32 years, was thrown, on the 2d of June last, from a horse that was running away. In falling, she grasped the animal by the neck and thus fell in front of him. His front foot struck her on the right parietal bone, near the top of the head, producing quite a large wound of the scalp.

When she was removed she was unconscious and about a pint of blood came from the wound and the right ear. On returning to consciousness, next day, it was noticed that she spat blood. This continued until the time she was examined.

A part of the fracture shows itself in the external auditory canal. There is hemorrhage from the mouth of the Eustachian tube. The stream can be seen flowing down the back wall of the pharyngo-nasal cavity, on examination with a pharyngeal mirror.

The fracture, as seen in the posterior surface of the auditory canal, extends outward from the membrana tympani as far as the cartilaginous portion of the canal, and shows itself plainly, looking like a slightly crooked scratch of a pin with the blood clotted over the scratch. The membrana tympani was bloodshot and swollen.

The patient complains of pain in the back of the head extending to the neck, and is more sore on certain movements of the head, especially a backward motion, while lying on the pillow.

The hearing of the ear (right) is much affected, and the ear itself has a numb sensation, and there is tinnitus. The patient has difficulty in pronouncing proper names and in asking for the right thing when at the table.

The further progress of the case will be reported in a few months.

FOREIGN BODIES IN THE EXTERNAL AUDITORY CANAL, WITH REPORT OF CASES.*

BY LEONARD KEPLINGER, M.D., WAXAHACHIE, TEX.

In writing upon the subject of foreign bodies in the ear, I will say that there are few difficulties met with in their removal, and little inconvenience caused by their presence, except those produced by an attempt at removal by one who is not accustomed to examine the ear, and who is inexperienced with reflex light.

In the first place, the external auditory canal is so constructed that it is a difficult matter to introduce anything far enough into the ear with the finger to cause pain; the canal is considerably smaller in its middle portion than either its inner or outer extremity. Hence, should a child succeed in pushing a foreign body beyond the narrow portion of the canal, it would find ample room to remain without causing any more pressure than that of its own weight, and if undisturbed would remain for an indefinite period without causing any inconvenience by its presence. The cases which might cause trouble are in the introduction of seeds; they may become bathed in the moisture of the canal and swell up, thereby producing pain by pressure; this would necessitate their removal at once.

Or, small foreign bodies may form a nucleus for the impaction of cerumen. I do not desire to discuss all forms of foreign bodies, but will simply confine my paper to those objects which are introduced from without inwards; such as buttons, beads, shell, seeds, slate pencils, stones, wads of cotton, and a variety of insects.

The greater majority of these cases are met with in children. Many mothers have a habit of keeping their baby's ears plugged with cotton; this often gets pushed far into the ear and the child is taken to the physician for its removal.

There is another class of cases which is of far greater importance than those just mentioned; namely, those where the foreign body exists in the minds of the patient and his friends, and not in the ear. In many cases the child comes from play and tells its mother it has put something in its ear. She looks in its ear and, nine times out of ten, imagines she sees the supposed object and tries to remove it, but

*Read before the Ellis County Medical Association, March 9, 1897.

loses sight of it; hence, she thinks she has pushed the object farther in, or, as often happens, the canal is large and straight and if the light is fairly good she sees the membrana tympani and takes it to be the foreign body; so, with this history, she goes to her family physician and insists that there is a foreign body in the ear, and requests its immediate removal.

Now, the question arises, what shall we do in case of foreign bodies, either real or imaginary, in the ear?

First, make a diagnosis; demonstrate, under reflected light, beyond a doubt, that a foreign body *is*, or *is not* in the ear. Remember the appearance in detail, both in health and disease. Listen to the history of the case attentively, but never, under any circumstances, undertake to remove a foreign body from the ear because some one said it was there; not even if a number of persons claim to have seen it, but act according to own judgment as a result of your examination. Should any doubt exist in your mind as to whether or not there is a foreign body in the ear, I would advise conservative treatment; leave the case alone. Let me add a brief history of two cases which I think fully illustrates the importance of an accurate diagnosis:

(Case No. 1.) R. Y., age 8, was brought to my office with the following history: On the day previous the child came in from play and told his mother he had put a small shell in his ear. She at once examined the ear and said she could see the shell. Several members of the family claimed to have seen it and attempted to remove it with a pin; however, they were afraid that they would push it farther in and did not persist in trying to effect its removal. On the following morning he was taken to a physician. Up to this time the child had suffered no inconvenience whatever, having no pain at any time, but here the symptoms set in. The physician examined the ear by ordinary light, and *also* saw the supposed foreign body; he at once proceeded to remove the same. Not having instruments sufficiently delicate at hand, a small pair of dressing forceps was used; the first attempt proved a failure, and the child stoutly resisted all further procedure; he was then held by force, and trial after trial failed to remove anything. All this time the child declared they were tearing something in his ear. Hemorrhage was quite free, and when they desisted from further procedure the child was unable to stand alone, and assumed a lateral curvature towards the affected side, and was suffering great pain. I saw the patient in the evening of the same day; he was carried into my office, being unable to sit up. He was suffering great pain and dizziness. All efforts to examine the ear

without chloroform proved useless, so I at once gave the patient chloroform and made a thorough examination under reflex light. But to my utter astonishment no foreign body existed. The membrana tympani was totally destroyed; the external auditory meatus was denuded nearly all over its inner fourth, especially in the lower part. The chain of ossicles was fractured and was removed piece-meal; this the father of the patient took to be the piece of the shell. After removing all loose particles of the ossicular chain, I washed out the ear with a 5 per cent. solution of carbolic acid and packed the canal with iodoform gauze. This was dressed every day for four or five days, and then at longer intervals. Very little suppuration followed. He was unable to stand alone for five days; however, he never suffered very much after the first few hours following the operation, and made a very good recovery in about six weeks, with fairly good hearing in that ear. (Watch on contact.)

Now, what had happened in this case? In the first place, the external auditory canal was short and straight, which is often the case; on examining the ear the parents saw the membrana tympani and of course thought it was the foreign body; the physician, supposing they were correct in their diagnosis and not being prepared to use reflected light, possibly made a hasty examination; saw the handle of the malleus, and probably the short process, lying at right angles to it, and he also thought it was the foreign body, and proceeded at once to remove the same, with the above results.

(Case No. 2.) Boy about 9 years old consulted me for hypertrophic tonsillitis; as a matter of routine, I examined the ear and found a foreign body in the canal. It was covered with wax, so I could not determine what it was, on first examination. Upon questioning the mother, she stated that six years previous he had put some kind of a berry seed in his ear; they called in their physician at the time. He and his assistant gave the child chloroform, worked with it some time, informed the family that they had removed it, and that the child would never suffer any inconvenience. I syringed the ear with warm water to dissolve the wax, and removed the substance with a pair of Noys' angular foreign-body forceps. This seed had remained all this time without causing any untoward symptoms whatever.

After having satisfied ourselves as to the diagnosis, the question of treatment arises. While the removal of foreign bodies from the external auditory canal is one of the simplest of aural operations, I believe that in inexperienced hands there is a wide field for

conservative treatment, and will probably yield more brilliant results than in any other disease or condition in the practice of medicine. Let me here report a case as an illustration:

(Case No. 3.) J. E., age 39, lawyer, consulted me for subacute pharyngitis. As is my regular custom, I examined the ears, found a foreign body in his left ear, which was readily removed with a delicate pair of forceps, and proved to be a wild rye head. The patient had no knowledge of its presence and was greatly surprised when I removed it. This foreign substance had probably been in the patient's ear since he was a boy on the farm, and had remained all this time without even making known its presence, thus showing that a foreign body may remain in the external auditory canal a lifetime with perfect impunity.

But, suppose we have found the foreign body and have determined to remove it? First, be provided with a good reflector. Always try the syringe first, and, if that fails, use such delicate instruments as the case may demand; of course the shape of the instrument will vary according to the nature of the foreign body to be removed. Possibly some one may think that it is not necessary to use reflex light in syringing the ear, but it is a good precaution; failure to wash the foreign body out often being due to the stream being directed *against* the foreign body and driving it farther in, rather than as directed, to one side of the foreign body, where it may be washed out with the return current. Of all procedures to remove foreign bodies from the ear, the syringe is the least productive of harm. Under no consideration is a physician justified in attempting the removal of a foreign body from the ear, unless he is perfectly familiar with the shape of the canal and the appearance of the membrana tympani, its relation to the chain of ossicles, and with a good reflected light as a guide.

Boils in the External Auditory Canal.

For the relief of pain, Field (*Brit. Med. Journ., Journ. Laryng.*, Oct., 1897,) believes that nothing is better than glycerine. It acts by relieving tension, and, when used, should be mixed with an equal quantity of tincture of opium, and some boric acid, applied on a small dossil of cotton.

NEW INSTRUMENTS.

VOLSELLA FORCEPS FOR THE ARREST OF HEMORRHAGE IN TONSILLOTOMY.

BY JOHN C. LESTER, A.M., M.D., BROOKLYN.

Fellow of the American Laryngological, Rhinological and Otological Society; Fellow of the American Academy of Medicine; Assistant Surgeon to the New York Eye and Ear Infirmary; Assistant Surgeon to St. Bartholomew's Clinic for the Eye, Ear, Nose and Throat; Member of the Medical Society of the County of Kings, Etc.

A recent experience of the writer in a simple case of tonsillotomy with the ordinary McKenzie guillotine, and the subsequent almost fatal hemorrhage, which was finally arrested by means of an ordinary uterine volsella forceps, suggested to the writer the value of a modification of this forceps especially adapted to the arrest of hemorrhage in excision of the tonsils.

Lester's Vulsellum Forcep.

A brief history of the case at this point may not be devoid of interest.

The patient, an apparently well-nourished young man, twenty-two years of age, by occupation a bar-tender, presented himself at the St. Bartholomew's Clinic with a history of repeated attacks of tonsillitis. These attacks were never severe, and the inflammatory condition quickly subsided under ordinary treatment.

Examination of the fauces revealed enormously hypertrophied tonsils, more or less filled with leptothrix masses. The tonsils, on palpation, seemed somewhat hard and fibrous.

After consultation, it was deemed safe to remove the right tonsil by excision with the guillotine. Violent and persistent hemorrhage followed. Applications of ice, the various recognized hemostatics, compression, position, etc., were resorted to without result. The patient

becoming exceedingly weak, the tonsil was seized by an ordinary volsella forceps, and the forceps clamped. Hemorrhage was immediately and completely controlled. The forceps having remained in situ for over an hour, its removal was considered safe, and it was unclamped. Hemorrhage, seemingly more profuse than before, recurred, and was again controlled as before. As a matter of precaution, the patient was then placed in the hospital and the forceps allowed to remain in position for nearly twenty-four hours. There was no return of the hemorrhage, and the patient made an uninterrupted recovery.

The carefully executed drawing of the forceps, by Messrs. Geo. Tieman & Co., of New York City, accurately represents the changes made in the standard instrument. As will be seen, the instrument is constructed with short prehensile teeth, set on a *broad* base. The handle is curved enough to allow the surgeon to easily grasp and clamp the tonsil. Properly adjusted, the forceps will remain in position indefinitely, and without discomfort to the patient.

Cases of alarming hemorrhage following tonsillotomy are, fortunately, rare; but an experience similar to the one reported cannot fail to impress one with the wisdom of a careful provision for a like emergency.

179 Schermerhorn Street.

An Instrument for Draining the Maxillary Sinus through the Inferior Meatus.

To establish free drainage in the treatment of empyema of the maxillary sinus, Dr. Ralph J. Wenner (*Cleveland Journal of Medicine*, Sept., 1897) has devised a trochar with adjustable handle and silver tube, seven-eighths of an inch in length. The trochar has a thread and movable shoulder, which prevent injury in insertion and also permits the use of tubes of different lengths.

An experimental puncture is made about one-quarter inch from the anterior end of the inferior turbinal in the inferior meatus; the trochar, without the tube, is forced through this opening. The trochar is then withdrawn and the tube adjusted. The tube may be allowed to remain several months if necessary.

A long, blunt, hollow needle, attached to a rubber tube and irrigator, is passed through the nasal tube into the antrum in irrigating.

EDITORIAL DEPARTMENT.

EDITORS AND PROPRIETORS.

FRANK M. RUMBOLD, M. D. M. A. GOLDSTEIN, M. D.

ASSOCIATE EDITORS.

M. D. LEDERMAN, M. D., New York.
S. SCOTT BISHOP, M. D., Chicago.
W. SCHEPPEGRELL, M. D., New Orleans.
F. B. EATON, M. D., San José, Cal.

FOREIGN EDITORS.

DR. J. DUNDAS GRANT, London.
DR. VICTOR URBANTSCHITSCH, Vienna.
DR. J. J. KIRK DUNCANSON, Edinburgh.
DR. MARCEL NATIER, France.
DR. J. K. KIMURA, Tokio.
DR. G. STERLING RYERSON, Toronto.
DR. FREDERICK SEMELEDER, Vera Cruz.
DR. GOTTLIEB KICER, Copenhagen.

ORIGINAL ARTICLES for publication should be in the Editorial Office on the 5th of the month preceding date of publication.

ILLUSTRATIONS necessary to elucidate the text will be furnished, without expense to authors, when suitable ink drawings or photographs are furnished.

SUBSCRIPTION price, $2.00 per annum in advance. Foreign countries, within the Postal Union, $2.25.

CONTRIBUTORS to THE LARYNGOSCOPE who desire reprints will please communicate with the Shallcross-McCallum Printing Co., 419-421 N. Fourth St., St. Louis, Mo., stating the number they wish, at the same time that they forward their MSS. to the Editors.

COMMUNICATIONS and all drafts and money orders should be addressed to

THE LARYNGOSCOPE,
P. O. Box 787, St. Louis.

EDITORIAL.

ANNOUNCEMENT.

From and after October 15th, 1897, Messrs. John Wright & Co., Bristol, England, will act as sole agents for THE LARYNGOSCOPE for Great Britain, India and Australia.

All subscriptions to THE LARYNGOSCOPE from this section must henceforth be placed through them.

CO-OPERATION.

Although THE LARYNGOSCOPE enjoys the distinction of having a greater number of actual subscribers than any other special journal of its kind in the United States, there are many physicians who would be glad to subscribe for it if they only knew of its existence.

Last fall we requested our readers to assist us by mentioning our journal to their friends, and by sending us the names and addresses of those whom they thought would be interested in it; as a result of the generous responses then made we received several hundred subscribers which we could hardly have otherwise obtained.

We would repeat this request and authorize our readers to offer THE LARYNGOSCOPE free to their friends from the present date to January 1, 1898, providing the new subscriber sends us two dollars with his subscription.

RETURN OF PROSPERITY.

From all sides come the reports of returning prosperity, and we trust that our subscribers will bear in mind that THE LARYNGOSCOPE would like to share in the restoration of good times.

Started during the financial depression, THE LARYNGOSCOPE has succeeded beyond expectation, but our list of delinquent subscribers is a *trifle* too long. Now that our readers have returned from their vacations, strengthened by recreation and relaxation, we trust they will bear us in mind and will slip a two-dollar bill or P.-O. O. into a letter addressed to THE LARYNGOSCOPE.

SEND US NOTES AND ITEMS.

The editors would be pleased to have the readers of THE LARYNGOSCOPE send in such short items, notes and queries that would be of interest to our readers.

Almost every physician has made mental notes of some peculiarities met with in daily practice which, if reported, would prove worthy of notice. Often the point of the observation can be made in a few words.

SELECTIONS
FROM CURRENT MEDICAL PUBLICATIONS.

RHINOLOGICAL.

The Inferior Turbinate; Its Anatomical Individuality, Its Hypertrophy and Its Degeneration.

Dr. Lacoarret states that the inferior turbinate presents a true individuality in the nasal fossæ (*Rev. Hebd. de Laryng., Feb. 27, 1897*). It consists of a distinct bone, and not, as in the other turbinates, of a simple osseous diverticulum. In its embryonic origin, the mucous membrane differs essentially from that of the other turbinates and resembles more the mucous membrane of the digestive tube. It has groups of glands, muscular fibre and enclosed follicles, which, from their great number, form a kind of nasal tonsil at the end of the turbinate.

The benign degeneration of the mucous membrane is preceded by an inflammatory process which has two distinct stages: One, a phase of congestion, and the other of organization, or hypertrophy, involving all the constituent elements. This hypertrophy presents two distinct forms, a smooth and a papillary form.

The degenerations which form the last stage of hypertrophy of the mucous membrane also present a smooth, or papillary form. From an anatomical, physiologic and clinical point of view, these degenerations are purely myxomatous, or fibromyxomatous. In their objective and microscopic character, by reason of their respective situation and their anatomical differences, they have no resemblance to the lesions of the same character which affect the mucous membrane of the other turbinates. We should, therefore, study the pathologic history of the inferior turbinate separately, as it presents a distinct entity. W. S.

The Means of Defense of the Nasal Fossae Against Microbic Infections.

After repeating the experiments of Lermoyez and Würtz and those of Thomson and Hewlett, Dr. Piaget has never found living microbes

beyond the anterior fourth of the nasal fossa (*Revue Int. de Rhin., Otol. and Laryng., June, 1897*). The nose, with the exception of the vestibule, is therefore an aseptic cavity. In animals (dogs and guinea pigs) the same results were obtained as in man.

After inoculating the mucous membrane with various microbes in bouillon or gelatine plates, it could be shown that it also possessed a decided bactericidal action, absolute for the bacteria of charbon, and less intense for the bacillus of Lœffler. It also possessed this action against the streptococcus, staphylococcus, colibacillus, and the bacillus of Eberth. The bactericidal power is not without its limit, and an account should be kept of the number of bacteria inoculated. These observations explain the little danger of intranasal operations and the uselessness of antiseptic washes. W. S.

Etiology of Nasal Obstruction.

Dr. Mayo Collier (*Journ. of Laryngol; Charlotte Med. Journ.*) draws the following conclusions:

1. Mouth-breathing, under ordinary conditions, must be regarded as pathological.

2. The constitutional causes giving rise to it are heredity, together with the sequelæ of eruptive fevers, tuberculosis, specific disease, and such maladies as tend to an adynamic condition.

3. The local causes are the various obstructive lesions of the nasal passages, referred to in a preceding paragraph, except those exceptional cases due to congenital shortness of the upper lip or other oral malformation, including hare lip.

4. Notwithstanding the frequent manifestations of mouth-breathing, and reference thereto by specialists, its manifold and far-reaching evil consequences are not fully appreciated by our profession as a whole.

5. That tendency to spontaneous cure is not to be relied upon, hence medical or surgical treatment is necessary.

6. Then with a view of preventing this and other diseases of the upper air passages, the patient should, in addition to proper care of the skin and feet, make it a part of his daily toilet to use a suitable cleansing spray applied to the nostrils and throat.

7. Mouth-breathing and the pathological conditions giving rise to it are brought about by habits and environments incident to civilization.

Surgery of the Nasal Fossæ.

Dr. C. Compaired of Madrid (*Rev. Hebd. de Laryn. d' Otol. et de Rhin.; Am. Med.-Surg. Bul.*) gives clinical demonstration of

the power of simple surgical procedures to cure completely, or relieve materially, diseases of the nasal fossæ which drugs of all possible selection were powerless to benefit. He claims that these surgical methods are the only treatment for that class of cases which he includes under the term nasal stenoses that will give us the tuto, cito et jucunde of the ancients. The almost constant immunity following operations from untoward complications, inflammatory and suppurative, remarkable when we consider the great vascularity of these areas, he attributes to a condition which the nasal cavities enjoy in common with the buccal cavity,—viz., an abundant secretion which catches, removes, and, perhaps, renders innocuous, all germs which would otherwise produce damage, especially when it is assisted, as in all modern surgery, by antiseptic sprays.

Catarrhal subjects have, as a rule, narrow or stenosed nasal passages and a doughy tongue, as well as marked disturbance of the general health.

Removal of the stenosis will prevent in children:

1. Thoracic deformities and their consequences.

2. Permanent malformations of the chest, deafness, faults in speech and mental function.

In adults:

1. It will prevent and cure asthma, spasmodic cough, bronchitis, melancholia and mental distraction.

2. In many cases stenosis is a factor in various nervous reflexes; and,

3. It is an important element in many diseases in which its influence has previously been overlooked. Moreover, it causes phenomena at remote points by continuity of tissue, by reflexes and by sympathetic function, as, for instance, of the genital organs.

He instances an inguinal hernia produced by the mere mechanical effort of blowing the nose in a case of stenosis. Loss of smell is explained by shutting off the olfactory nerves from the inflowing air current by the swelling of the turbinated tissues.

Powders, sounds, medicated cylinders, sprays, injections, irrigations with medicated solutions, tampons and all kinds of salves were given a patient and thorough test. But surgery brings in gradual dilatation with bougies, electrolysis, galvano-cautery, curetting, slicing, use of scissors, saws, etc., ranging from the smallest procedure to the most formidable; and the more blood-letting the remedy the more radical and efficient. Conviction is brought home by the clinics.

Differential Diagnosis between Chronic Rhinitis and Ozena.

In the advanced stages ozena is easily differentiated from all other chronic rhinitis, but at the onset of the affection this differentiation may be very difficult. (Della Vedora, in *Rev. Hebd. de Laryng., etc.*, No. 19, 1897.) The author believes that this diagnosis can be made at any period by bacteriologic examination and sero-therapy. He believes the discovery of the pseudo-diphtheritic bacillus indispensable for the diagnosis of rhinitis chronica atrophicans fœtida. Under sero-therapy the pseudo-bacillus is enfeebled in all its vital manifestations.

Thus, ozena may be differentiated from, first, rhinitis with crust formation, without odor; second, rhinitis with abundant catarrhal secretion, with odor; third, rhinitis sicca with more or less pronounced atrophy of the nasal mucosa; fourth, rhinitis with crust formation and fetid odor; fifth, rhinitis with crust formation, without odor, and with more or less pronounced atrophy of the nasal mucosa; sixth, rhinitis with scanty secretion, without odor, and with atrophy of turbinates.—*Jour. E. E. and T. Dis.*, July, 1897.

Naso-Pharyngeal Catarrh in Children.

In adult patients chronic disease of the nose and throat is very apt to be referred to specialists for treatment. In early childhood, however, this course is not so often convenient, and the cases remain under the care of the family doctor. Upon the general subject we observe an article by J. Comby in *La Medicine Moderne.* When brought into contact with a severe cough it is necessary, in the first place, to exclude bronchitis, whooping-cough, and disease of the mediastinal glands. The next step consists in the examination of the throat and nose. In the former we may find hypertrophy of the tonsils, pharyngeal granulations, or muco-purulent catarrh of the back of the nose and posterior wall of the pharynx.

The symptoms of naso-pharyngeal catarrh are a sense of dryness in the throat, some difficulty in swallowing, a dry, frequent and spasmodic cough, nocturnal rather than diurnal. Such a cough may even be followed by vomiting. It is of reflex origin, and caused by the secretion present in the pharynx threatening the entrance into the larynx. Such cases should be examined not solely by means of the tongue-depressor, but by anterior and posterior rhinoscopy. If we restrict ourselves merely to cauterizing the tonsils or pharyngeal granulations, we fail to attain our object. It is necessary, according to our author, to act upon the coryza and pharyngeal catarrh through

the nasal passages. The daily instillation of one or two drops of mentholated oil (one to forty or one to fifty) is an efficacious procedure and can be recommended.

Nasal-pharyngeal catarrh is very common among children after being weaned and from the second to the fifth years. It is also seen in nurslings. The author instances a case in which the secretion was so abundant that it obstructed the larynx and produced symptoms analogous to those of croup. This pseudo-croup yields very rapidly to irrigation of the throat and nasal passages. The symptoms of naso-pharyngeal catarrh are more frequent and troublesome in winter than in summer. The common colds of inclement seasons often end in disease of the naso-pharynx. Acute or relapsing coryza often precedes the pharyngitis. Deformity of the nose, deviation of the septum, hypertrophy of the pituitary membrane, etc., are frequent predisposing causes. Hereditary syphilis sometimes seems to play a part in its production. Naso-pharyngeal polyps, adenoid vegetations, every variety of tumor of the nasal cavities or pharynx almost necessarily excite catarrh. Finally, the lymphatic temperament plays an influential part. Certain children of arthritic, tuberculous or scrofulous stock present an unusual development of the lymphatic system. Their subcutaneous glands are large, their flesh soft, and, as it were, gorged with lymph; their lymphoid organs (tonsils and closed follicles) are hypertrophied. The mucous membrane which covers this adenoid tissue is itself thickened, soft, and very prone to take on inflammation. Naso-pharyngeal catarrh is the attribute of such children, though all hereditary or acquired causes of local irritation of the nose and throat suffice to produce the disorder.

The symptoms relate to the nose and throat; as regards the former, they are identical with those of coryza. In order to be assured of the presence of posterior coryza, we need only inspect the throat. The mucopurulent matter can then easily be seen. The presence of this matter accounts for the pharyngeal cough of Dr. Millou, the sickening nocturnal cough (la toux nocturne emetisante) of Dr. Gaston. The children attacked by naso-pharyngeal catarrh, in fact, cough much; they cough the more in proportion to the accumulation of mucosity; the paroxysms are particularly severe during the night or in the early morning because the horizontal position has allowed the secretion to accumulate in the pharynx.

The evolution of naso-pharyngeal catarrh belongs rather to chronic than acute diseases. The children cough for weeks and months. Proper treatment causes improvement or temporary cure, but recurrences are frequent, as a starting-point is present in vegetations, pos-

terior coryza, etc., and the least cold occasions a catarrh in a soil already so prepared. The prognosis is not serious. Even when neglected or overlooked naso-pharyngeal catarrh seldom leads to complications or secondary infections. What is most to be feared is the occurrence of middle-ear disease from extension through the Eustachian tube. Laryngismus stridulus, bronchitis, or broncho-pneumonia may occur. This disease, however, though stubborn, is benign.

Treatment of naso-pharyngeal catarrh is general and local. The former is by means of cod liver oil, syrup of iodine and tannin, good food, fresh air and sunshine. The latter is by the use of a spray of borated or sulphurous water. His preference, however, is the solution of menthol in oil, already mentioned. The pharynx may be cleansed and medicated by the spray or touched with pure or dilute tincture of iodine, but the key to success lies in the proper treatment of the nose.—*Medical Bulletin*, May, 1897.

Nasal Angeioma.

Dr. F. C. Rogers, in the *Milwaukee Med. Jour.* (Aug. '97), reports a case of angeioma cavernosum. The history of the case presents patient with a gradually increasing impairment of the sense of smell, until at time of examination it became so blunt that only the most pungent odors could be appreciated. About nine months prior to the examination by the author, the patient became aware that something was growing in his right nostril. In two months time the tumor completely filled the nostril, entirely stopping respiration on the affected side. The growth increased rapidly, causing great deformity. Severe neuralgia accompanied the growth of the tumor. Patient had profuse hemorrhages at irregular intervals.

Examination revealed entire absence of respiration. Firm body seen in anterior nasal chamber, composed of large, purple interlacing blood vessels; the whole tumor covered with a translucent, grayish capsule; mass could be seen by posterior rhinoscopy, projecting through the choanæ. Pulsation could be felt, and slightest touch with probe started persistent and profuse hemorrhage. The mass had its origin from upper nasal area.

The tumor was removed after thorough cocainization with cold wire snare. The mass was slowly snared off, and hemorrhage was considerable. The cavity was packed with iodoform gauze. Microscopic examination confirmed the diagnosis.

An Operation for the Correction of a Saddle-Back Deformity of the Nose.

In the April, 1897, issue of THE LARYNGOSCOPE, Dr. E. C. Ellett

reported a case of erysipilatous abscess of the nasal septum. This case is now the subject of a successful operation by the author (*Memphis Medical Monthly*, Sept., 1897), for the correction of saddle-back deformity of the nose. The operation consisted essentially of exposing the dorsum of the nose by an incision 25 millimeters long and extending above and below the extremities of the depressed portion. The tissues about the incision were dissected up freely over an area of four or five millimeters. After checking the bleeding with hot compresses, an oval platinum plate was inserted over the exposed dorsum. This plate was 20 by 15 millimeters, and curved from side to side, to conform to the curve of the nose, and perforated, to allow of its being more firmly fixed during the healing. The tissues were brought together over the plate, the wound closed under strict asepsis. The plate was previously boiled in soda solution, preserved in alcohol and immersed in bichloride before insertion.

The whole nose, after healing, is solid and the correction of the deformity thoroughly successful.

Spontaneous Correction of Deviations of the Nasal Septum by the Simple Removal of the Obstruction from the Opposite Nostril.

Dr. Lacroix reports the case of a patient suffering from almost complete nasal occlusion, who had a marked deviation of the septum on the left side, and on the right, a spur in the lower and polypi in the upper portion (*Archiv. Int. de Laryng.*, *Jan.*, *Feb.*, *1897*). An operation was made on the right side, leaving a patulous nostril which diminished in size daily by the straightening of the nasal septum, so that bilateral respiration followed without further operation.

The author advises that the opposite nostril be examined for obstructions, such as spurs, hypertrophy of the turbinals, etc., before attempting to correct a deviation of the septum. In many of these cases the correction of the deviation is spontaneous when the obstruction is removed. W. S.

Ozena Treated by the Serum Method.

In a paper on this subject, presented to the Spanish Oto-rhino-laryngological Congress (*Arch. Lat. de Rin.*, *Lar.*, *Otol.*, April 6, 1897), Dr. C. Conpaired rehearses this method of treatment, and formulates as follows:

1. That up to the present time this constitutes the most effective therapeutic treatment of ozena.

2. That the brilliant result obtained is revealed subjectively by the disappearance of the nasal odor, following the second or third in-

jection of 4 to 6 c. c. of serum recently obtained, and performed with strict aseptic and antiseptic precautions; and, objectively, by the lack of dryness in the nasal fossæ, with diminution in the crusts and increase of the fluid nasal secretion.

3. That, objectively, a change is noticed in the color of the mucosa, which appears pinkish, somewhat moist, and slightly swollen, and hyperemic.

4. That the crusts become less hard, dry and decrease in size, increasing in fluidity with the increase in the number and doses of the injections.

5. That the dose of 10 c.c., advised by Gradenigo, and even of smaller amount, is not free from danger, and for this reason it is advisable to use it in increasing proportions, exercising great care.

6. The author does not regard the aforesaid treatment exempt from inconveniences and danger. It has afforded, however, the best results, and for this reason it is advisable to study further its efficiency.—*Am. Med.-Surg. Bul.*

Epistaxis and Its Management.

This familiar subject is given a practical consideration by Dr. S. Trask in the *Pacific Medical Journal*, July, 1897. A clear account of the more frequent sights and causes of epistaxis and up-to-date methods of arresting it. Special stress is laid on the proposition that whatever the constitutional case may be, there is always a local cause and a local lesion to be sought and treated. First, as regards the site: It is most often found (certainly in non-traumatic cases) springing from the septum and generally quite anteriorally. This region is more than one inch inwards from the vestibule, and owing to its superficial position has been frequently as a hemorrhage center. In simple cases a light touch of a probe fused with argent. nitrate will arrest the bleeding. If the hemorrhage continues, a styptic, which coagulates or decomposes the blood on contact, should be used. The author uses finely pulverized sub-sulphate of iron rubbed into the mesh of antiseptic gauze, cut into fine strips or made into small tampons and applied with some pressure to the bleeding surface. A still more effectual remedy in the hands of the author is the following: At a moment when the bleeding has temporarily ceased spray the involved area with a one per cent. solution of cocaine. Pack about the bleeding-point pledgets of cotton previously soaked in a ten per cent. solution of citric acid c. p. Remove the cotton after a few minutes and spray the affected side with a plain hydro-carbon. After directing the patient to take a deep

inspiration, touch the bleeding-point with a wisp of cotton twisted on the end of a toothpick, dipped lightly in fuming nitric acid. The precaution should be taken that all excess of acid should be removed before the application is made. A minute eschar is formed which drops during the healing, usually in a few days. When the bleeding is profuse several of these cotton-tipped toothpicks may be used and the various bleeding-points thus controlled.

Should the bleeding continue, or recur, grave internal or malignant local disease is the cause. Whatever the malady, to compose the nervous system lessen the after tumultuous action of the heart and limit the supply of blood to the naso-pharynx; give at once a hypodermic injection of morphia and atropine. Suitable ergotine preparations may be used in the same manner. The most reliable and readiest at hand of internal medicines are opium and spirits of turpentine. Chloride of calcium has come into favor of late, and employed in doses of thirty grains has reduced the time of blood coagulation in several cases reported to one-fourth the normal period.

Fatal Hemorrhage From the Removal of Adenoid Vegetations.

Schmiegelow (*Monatsschrift für Ohrenheilkunde*, 1897, No. 3; *Centralblatt für Chirurgie*, August 14, 1897) reports a case, not his own, but occurring in the practice of a surgeon who had often done the operation without mishap. The patient was a boy, twelve years old, who showed nothing strikingly abnormal beyond a pronounced adenoid habitus and scrofulous glands in the neck. The operation was done without anæsthesia, and the ordinary Gottstein annular knife was used. Without any warning, a sudden gush of arterial blood issued from the mouth and nose. In spite of prompt tamponing and subcutaneous and intravenous saline injections, death occurred in a few minutes. The internal carotid artery was found to have been opened just in front of its point of entrance into the carotid canal of the pars petrosa ossis temporis. The author supposes that swollen glands had pushed the vessel forward so that the pressure of the knife caused its rupture, for it was not cut.

Statistics in Naso-Pharyngeal Adenoids.

In a clinical study of seven hundred and one cases of naso-pharyngeal adenoids, observed in two thousand dispensary patients, Dr. H. Arrowsmith, of Brooklyn (*N. Y. Med. Journ.*, Aug. 28, 1897), draws the following conclusions:

Disorders of the tonsils—faucial, pharyngeal and lingual—have a very important place in the pathology of the upper respiratory tract.

In 42.9 per cent. of the two thousand cases these organs were affected. Hypertrophy of these tissues was more frequent in the female sex. In enlargement of the lymphoid material at the base of the tongue, the females show a very decided preponderance over the males. In hypertrophy of the tonsils, after the fifteenth year, the number of females is more than double that of males. The most frequent condition for which patients sought relief was difficulty in nasal respiration. Next in frequency were symptoms referred to the ear; and more rarely complaints were made of epistaxis, eczema of the nostrils, cough and hoarseness, headache, spasmodic croup, asthma, cervical adenitis, "snuffles," various epileptoid attacks, convulsions, and disorders of speech.

As an accompaniment of lingual hypertrophy the most common symptoms were a sensation of dryness in the throat with irritable cough, sensation of foreign body, dysphonia. aphonia, dysphagia, dyspnoea and loss of acuteness of taste.

In nine cases, hypertrophy of both the faucial and pharyngeal tonsil was noted. Hypertrophy of the faucial tonsil was rare above the age of twenty-five. In adults, tonsillar hypertrophy was more common than adenoid vegetations, owing to the larger amount of the fibrous tissue framework in the faucial than the pharyngeal tonsil.

Of 255 operations, 204 were done under general anæsthesia, either being employed to a point just short of abolishing the cough reflex. No douches were permitted for some time after operation. In no case has an operation been followed by an otitis where the ears have previously been sound.

Contrary to the experience of many European observers, in not a single one of the seven hundred and one cases enumerated has there been the slightest indication of a tuberculous tendency in these structures, discoverable on gross examination; and microscopical examination in twelve consecutive, unselected cases, have also been absolutely negative.

The Frontal Sinus.

In this article, which is more particularly addressed to the oculist, Dr. Gallemaerts exhibits some interesting anatomical points. (*Policlinique de Bruxelles, Nov. 13, 1896.*) Contrary to the statement of most anatomists, he has found the right sinus usually larger than the left; in twenty-five skulls the right sinus was missing once. The anterior is the thickest wall; the orbital wall is the weakest, and next to this the cranial. Hence the majority of cases discharge their pus in the neighborhood of the orbit and then toward the brain. Some-

times the fronto-nasal canal does not open directly into the infundibulum, but into an anterior ethmoidal cell. The sinus does not exist in the new bone. It is the size of a small pea at one year, and at ten is well developed.

The catheterization of the sinus is not always possible by the natural passage. When the sinus opens into an ethmoidal cell, the osseous wall must necessarily first be perforated. The author concludes his article with some examples which prove the necessity of the thorough recognition of empyema of the frontal sinus by the oculist, as it may simulate phlegmon or osteitis of the orbit. W. S.

A Light Form of Psychique Excitation Following an Endo-Nasal Operation.

Dr. Luzatti reports a case, a woman of 35 years, in which, after removing a piece of the middle turbinal with the cold snare, without the application of cocaine, the patient gave a peculiar laugh, spoke with extraordinary loquacity, and exhibited, during the entire day, marked agitation—singing and speaking incoherently (*Annales des Mal. de l' Or., Feb. 1897*). The following day the symptoms disappeared.

This was probably a reflex caused by an operation on a patient suffering from a light degree of hysteria. W. S.

Spherical Ivory Osteoma of the Superior Maxilla.

Drs. R. and J. R. Winslow, in *Journal of Eye, Ear and Throat Diseases*, July, 1897, report this rare case of ivory osteoma, obliterating the antrum and occluding the nares.

The growth appeared in a 13-year-old boy, as "a small, red pimple at the lower part of the inner canthus." At time of examination, six months later, there was a dense spherical mass involving the greater part of the left upper jaw. The nasal passage was encroached upon, and pressure on nasal duct caused purulent inflammation of the lachrymal sac. The deformity of the nose, by broadening of the nasal dorsum, produced the so-called "frog-face" appearance.

The operation for removal of the tumor was made by exposing the bone by an angular incision beginning near the outer angle of the orbit and running parallel with the floor of the orbit to the nose, thence in the naso-facial crease to the ala and around this nearly to the middle line of the upper lip. The tumor was detached by means of a curved chisel, three teeth being removed with the growth. Patient made a perfect recovery.

Section of the tumor showed it to be a dense ivory-like osteoma,

about 1 3/8 inches in diameter and almost circular in shape. The thickening of the bone extended into the alveolar process, apparently due to the irritation of an unerupted canine tooth. The antrum was obliterated.

LARYNGOLOGICAL.

Actinomycosis of the Tonsils.

H. Ruge, in the *Z'tschf. f. klin. Med.*, XXX., p. 529, reports four cases of disease of the tonsils in which a fungus resembling actinomycosis was found. The organisms were found always in the crypts of the tonsils, never in the tissue, and differed from true actinomycosis hominis in that the club-like bodies were not swollen at the ends, and that the contained granules were larger, and moreover the color-reactions varied somewhat.—*Am. Med.-Surg. Bul., Aug.*, 97.

Diseases of the Nose and Throat in Relation to General Medicine.

Dr. F. de H. Hall (*Jour. Laryn., Rhin. and Otol.*) accents the importance of the nose and throat as the chief portals of entrance of the poisons, whatever they may be, which give rise to infectious diseases. Evidence is gradually accumulating which points to the conclusion that people who suffer from nasal affections are more liable to contract infectious diseases, especially diphtheria, than healthy persons. In erysipelas of the face there is frequently some chronic nasal affection, and the erysipelatous flush, starting from the center of the face, is found to take origin from the nostrils. A large amount of literature has accumulated on the subject of erysipelas of the larynx and pharynx, but our ideas on this subject have been clarified since we recognized the streptococcus of erysipelatis as the cause of erysipelas. It is likely that this is identical with the streptococcus pyogenes, known to be the cause of various septic affections of the throat, such as phlegmonous erysipelas and angina ludovici.

If we except water-borne diseases, such as cholera and dysentery, almost all the other infectious diseases are conveyed by the air, and hence the morbific agent usually enters by way of the nasal cavities and pharynx, and here it proliferates during the first stage of incubation.

Lacunar tonsillitis occasionally follows, then inflammation caused by intranasal cauterization. It is also known to follow simple cold in the head, and the micro organisms causing it are supposed to enter the tonsils by way of the blood supply or lymphatic system from

the nasal inflammation. The role played by the tonsils as a point of entrance of germs into the system has now become very generally recognized. Gerhardt has termed the tonsil a physiological wound —guarded, however, by leucocytes which protect the system against the entrance of these germs. If from any reason the energy of the leucocytes is diminished or the tonsil is in an unhealthy condition, then the germs of the disease, such as scarlet fever, diphtheria, and other infectious diseases, gain access to the system.

Tubercle bacilli can probably pass through the tonsils, and without giving rise to any disturbance in them, may produce tuberculosis of the glands of the neck. Adenoid vegetations in the naso-pharynx have a similar action to the tonsils in this respect.

The throat manifestations of the various infectious diseases are then considered at length.

In smallpox, as in other acute specific diseases, the excoriated condition of the mucous membrane of the upper air passages renders it vulnerable to the bacillus of diphtheria; hence a diphtheritic exudation may appear on the fauces, or the patient suffer from membranous laryngitis. This complication usually begins about the tenth day and runs a rapid and fatal course.

The nasal and throat manifestations of measles are well understood. In delicate children severe stomatitis and even cancrum oris may develop. As with scarlet fever, acute inflammation of the middle ear may occur. The hoarseness and constant irritable cough met with in the first stage of measles point to the implication of the larynx. Owing to the tendency to spasm in children the cough is frequently of a croupy nature. Membranous laryngitis is an infrequent but very dangerous complication of measles.

In scarlet fever, in addition to the usual implications of the throat, the streptococci of pus may develop in great numbers in the mucous discharge and occasion cervical adenitis, abscess, purulent otitis media, endocarditis and pleurisy.

In influenza, the nose, as being the chief portal of the entrance of this specific bacillus which is taken in with the inspired air, is early affected and the accessory cavities are very liable to be involved, the intense frontal headache being due in many cases to extension of the catarrhal process from the nose to the frontal sinuses; and cases of antrum disease are common, but when coming on in this manner respond much more quickly to the treatment than those developing more gradually.—*Medicine.*

Peritonsillar Abscess. New Method of Opening.

Most of these abscesses are located in the depression above the

tonsil (fossa supratonsillaris) and between the arches of the palate. To inspect this region the patient's tongue is extended and depressed, the commissure of the lip is retracted and the head inclined toward the shoulder of the diseased side. In an abscess of any considerable size one can see an oval-bulging of the affected side. This area is cocainized, and by pressure upward and outward with a strong probe the abscess cavity can be reached. The opening is then dilated with forceps for several days and antiseptic gargles ordered. (Killian, in *Monatschr. für Ohren.*, No. 12.) In the *Münchener Med. Woch.*, No. 38, Grünwald indorses this method, and insists that an abscess which cannot be reached in this way has no connection with the tonsil. In support of this view he reports an abscess of the anterior palatine arch and velum, due to a decayed molar tooth and its alveolus, in which no pus was obtainable through the fossa supratonsillaris. Stetter (*Monatschr. für Ohren.*, No. 4, 1897,) recommends the knife in place of a probe for making the incision.—*Journal E. E. and T. Dis.*, July, 1897.

The Diagnosis of Lœffler's Diphtheria Bacillus.

Schanz, in the *Berl. Klin. Woch.*, No. 3, 1897, states:

The more we study the pseudo-bacillus of diphtheria, the more we are convinced of its great resemblance to the true bacillus of diphtheria. There is no longer any other distinctive sign than the proof of its virulence. The two bacilli are not identical, but belong to the same family, which has not yet been determined; as long as this is the case the bacteriologic diagnosis will scarcely be of very great value, especially in an examination made in 24 hours.—*Jour. E. E. and T. Dis.*, July. 1897.

To Facilitate Intubation of the Larynx.

Dr. C. Sihler in *The Cleveland Medical Gazette*, July, 1897, says: "For a long time it was a mystery to me why there was such a difference in the difficulty of inserting the tube in different patients, and I attributed it to the difference in the configuration of the structures. Finally, however, it became clear to me that the important thing would be to have the head held well forward—in fact so much forward that one will perform the operation on one's knee. There is the greatest difference in facility of execution between performing the operation in a standing position and where one is resting on the knee—at least in my own experience. Very skillful men, perhaps, have no trouble in performing this operation. I have to confess that I do not look upon it as such an easy one, and as there may be others

in the same predicament, I give to these the brotherly advice: *Operate while on your knee.* One can readily understand why the conditions are so much more favorable. The vertebral column rather forms a concavity anteriorly when the head is held forward and almost downward, so that the larynx is brought thus backward and comes within more easy reach; and I think the direction in which we can now push the instrument will be easier to find than when standing." (*Phila. Polyclinic*, Aug. 28, 1897.)

Chronic Ulcerative Tuberculosis of the Fauces and Larynx—Possibly Primary.

Dr. Richmond McKirrey reports this interesting case in the *Memphis Medical Monthly*, Sept., 1897:

The history of the case includes marked aphonia, entire absence of pain upon deglutition and absence of cough; the patient being a young colored girl, aet. 13 years. The clinical picture presented a complete ulcerative destruction of the fauces, involving soft palate, anterior and posterior pillars and tonsils. The larynx presented a picture seen in advanced ulcerative tuberculosis. Every portion of the larynx seemed to be involved.

The case is either one of primary tuberculosis of the fauces and larynx, followed by pulmonary invasion, or else a remarkably chronic case of pulmonary tuberculosis with secondary laryngeal and faucial involvement.

The Present Status of Partial and Total Extirpation of the Larynx for Malignant Tumor.

By Dr. K. Czwiklitzer, Breslau (*Beitrage zur klinische Chirurgie*), translated by George R. White, New York (*Annals of Surgery*, August, 1897).

Thirteen cases of laryngectomy are reported from the clinic of Professor Mikulicz, including nine cases of partial resection, two cases of resection of half of the larynx, and two cases of total extirpation. Including a case done six weeks before the report was made, five of the thirteen cases have lived. These five are all cases of partial resection and have lived six weeks, one and a half years, two and a half years, five years, and eight and a half years respectively.

As compared with the earlier statistics there is some improvement in recent years, due to two causes—namely, better selection of cases and improvement in operative technique.

There is now a larger proportion of partial resections, showing that the operation is done earlier than formerly, and a falling off in the number of cases of total extirpation, owing to the almost constant fatal result following that operation.

The chief improvement in the technique consists in closing off the buccal cavity in cases of total extirpation by suturing the anterior wall of the esophagus to the base of the epiglottis, thus avoiding sepsis from the secretions of the mouth.

Preliminary tracheotomy several days or weeks before the operation, to get the patient accustomed to the tube, is now given up, as the cicatrix about the tube is detrimental in several ways, and is liable to become invaded by the malignant growth. Tracheotomy is done at the time of the operation, using Trendelenburg's or Hahn's tube. The former, however, is liable to be punctured during the operation with serious results.

Rose's position, with the head dependent, has not given satisfactory results either during or after the operation.

The functional result depends largely upon the amount of tissue removed. In cases with two-thirds or more of the larynx remaining, a fairly normal function may be expected if the tracheotomy tube is removed early and care taken to prevent cicatricial stenosis. Five of Mikulicz's thirteen cases were able to speak audibly, but with a harsh, rough voice.

The artificial larynx seems to be falling into disuse, neither Mikulicz nor Billroth has used it. For cases of partial resection it is best to have the patients learn to speak without the use of apparatus, and for cases of total extirpation the mouth and trachea may be connected by a so-called chimney tube—a plain glass tube, convex anteriorly, with a fenestrum in front. Reference is made to a case of Solis-Cohen, who learned to speak audibly, although there was no connection between the mouth and trachea. In conclusion, he makes a strong plea for early diagnosis and operation.

Cancer of the Larynx.

After a historical review of this disease, Schmiegelow (*Ann. des Mal. de l' Oreille, etc., Ann. O. R. and L.*) reports 34 cases of his own observation. There were 21 male to 13 female patients, and the age was mostly (25) between 40 and 60. The symptoms are often slight in the beginning and sometimes consist only of some hoarseness. Pain depends on the seat of tumor, whether it is outside or inside the larynx. The prognosis of cancer inside the larynx is much better, especially if the vocal cords are the part involved. The author saw a case of a papilloma in the posterio and a carcinoma in the anterior half of the cords. A tumor may change its character into a malignant growth.

The Treatment.—(1) Extraction from within the larynx; (2) laryngo-fissure; (3) resection of a part of the cartilages; (4) extirpation of the larynx; (5) tracheotomy.

Among the cases that were operated upon after the first method are some that were cured for 12 and even 20 years. This operation is indicated in polypoid forms. Laryngo-fissure and partial or total resection were first recommended by Billroth in 1873. The immediate results of the operation are good. After three years the outlook is just as dark as in the other forms of cancer. Of 50 cases of resection of the larynx there were 16 per cent. of immediate deaths and 16 per cent. recovery without recurrence after three years. Fifty cases of total extirpation of the larynx had 11 deaths and 5 cures lasting at least three years. The author describes a new way of operating without tamponing the larynx after the operation.

The Diagnosis of Laryngeal Tuberculosis.

Massei insists upon the difficulty of well recognizing early cases of tubercular laryngitis, which simulate chorditis or syphilitic infiltrations. (*Archivio Italiano di Otologia*, *Jour. Laryng.*, etc.) It frequently happens that no pulmonary sign is present; no tubercular bacilli found. The patient may be really a syphilitic one, but he is, in the meantime, affected by tuberculosis.

We can affirm the true nature of the disease in such doubtful cases either by a microscopic examination of small pieces, or by inoculations in guinea pigs, or, better, by both.

The author was struck with the interest of such a fact, which allows an early surgical treatment with curettement and local applications. He is also convinced that similar cases are less rare than believed, and they practically confirm Fraenkel's opinion on the prevalence of tuberculosis by inhalation—*i. e.*, the evidence of a primary laryngeal tuberculosis in a more frequent rate than is commonly believed. He expresses the wish that such a practice (removal of small pieces of the affected tissues for experiments) may be taught as a rule in the schools, and applied often in the practice.

Submucous Hemorrhage of the Vocal Cords.

A series of five cases of this uncommon condition is reported by Dr. S. W. Langmaid in the *New York Medical Journal*, August 28, 1897.

The situation of the extravasation was in every case at the junction of the anterior with the middle third of the cord. In four of the cases

the hemorrhage consisted of a globule of blood underneath the delicate mucous membrane, whose diameter was nearly that of the transverse diameter of the cord, with margin well defined.

In each instance vocal strain was the cause of the hemorrhage, with accompanying catarrhal condition. Four of the cases were in singers. The impairment of the voice consisted in hoarseness and limitation of the upper register. In four other cases the lesion was located on the right cord; in one it was on the left. The author assigns as a cause for this condition an excess of force required to bring the glottis into sounding position in consequence of a laming of the vocal muscles from a catarrhal chorditis. This resulted in congestion, even to the extent of rupture of a blood vessel.

That bad vocal technics is not always a factor in this lesion is shown by the fact that it occurs in the most finished singers.

In none of these cases were both cords affected, although this is rather the rule than the exception in observations by others. Laryngeal pain was frequently complained of.

As to the prognosis, it may be said that all cases recover very quickly, excepting where a vascular tumor remains; this must be removed before the voice is restored. The treatment should consist first of all in *absolute* rest to the voice where possible. The laryngeal catarrh should also receive attention. The author has found the application of a spray of menthol efficacious. To help in the restoration of the vocal tension strychnine may be administered and, after the complete disappearance of the extravasated blood, intralaryngeal galvanization may be beneficial.

Voice After Removal of Adenoid Vegetations.

A guarded prognosis is given by Dr. Gibb (*Phila. Polyclinic*, June 26, 1897) as to the quality and character of the voice after the removal of *adenoid vegetations* from the vault, or the excision of hypertrophied faucial tonsils in children of ten years or over. We are apt to believe in the return to a normal voice after these operations, and not infrequently we shall be disappointed. Besides the faulty habit formed, prolonged mouth-breathing brings about changes in the turbinates, and the high-arched palate contributes to an alteration of tone.

Syphilis of Epiglottis.

At a recent meeting of the Berlin Medical Association, Dr. Hansemann described a new syphilitic symptom hitherto not recognized as such, although it is of frequent occurrence. It is an inflammatory

condition of the epiglottis, commencing at the extreme root of the tongue and working outward. The inflammation causes retraction of the epiglottis, which in time becomes anteflected and even doubled. In the autopsy of fifty-five cases with unmistakable indications, Dr. H. noted twenty-five with the epiglottis anteflected, thirteen shriveled and seventeen normal. In five cases the epiglottis was anteflexed, without any other indications of syphilis, although atrophy of the root of the tongue was present in one case. As it is not infrequently important, to be able to determine definitely the presence of constitutional syphilis at an autopsy, this condition of the epiglottis may well support the suspicion of syphilis.—*Journal of American Medical Association.*

OTOLOGICAL.

Examination of the Ear in Children. Hearing Tests.

Dr. P. Bonnier employs the auscultation tube and tuning-fork in making tests for the hearing of children. (*Journal de Medical de Paris*, February 14, 1897.) One end of the auscultation tube is inserted into the auditory meatus of the ear to be tested, and the other to the examiner's ear. To the middle of the tube the handle of a large tuning-fork of large vibration is applied.

The comparative length of time is now estimated as to the duration of the vibrating-fork, as heard by the ear of the patient and that of the examiner. The conclusion is thus drawn by the relative hearing power of the patient to that of the examiner.

The power of audition of a child should be more acute than that of an adult. This simple method of determining relative audion is practical.

Gout as a Cause of Ear Disease.

Dr. Charles Baum, in *Philadelphia Polyclinic*, July 24, 1897, writes:

In text books, reference is seldom made to ear troubles occurring in gout. The same toxic cause which produces the well known ordinary symptoms of gout, does produce otalgia. Gouty otalgia does not differ in its symptoms from ordinary earache, except that the intensity of pain is most severe during the "small hours" of the night, and that it is most rapidly relieved by appropriate constitutional treatment.

Tinnitus aurium, of gouty origin, is slowly increasing in frequency.

In such cases, as a rule, the acuteness of hearing is not affected; vertigo is frequently absent; pressure sensations from within upon the external tympanum are common, especially during a paroxysm of gout in the classical locality; posture of body does not influence the intensity of the sound to any great extent, but the degree of saturation of the blood by the gouty poison increases or diminishes it. The character of sound varies as in ordinary tinnitus aurium. During the night the sound is most marked. Long continued and local treatment has been of no avail. Proper constitutional treatment will greatly relieve or almost remove the tinnitus aurium. It is doubtful if a complete cure can be obtained.

Deafness of Genital Origin.

P. Bonnier writes in *Revue Internat. de Rhin., Otol. et Laryng.*, No. 3, 1897, that he has met three cases of deafness associated with genital troubles of different nature. Deafness found in subjects of onanism and in certain degenerates is accompanied by a generalized clouding of all the sensorial functions and a deep voluntary mental depression. Two of these cases were not in subjects of onanism, and the third retained normal brightness and intelligence.

1. A boy of 13 years, for several years, had been affected with intermittent deafness, and been variously treated therefor. At first he appeared absolutely deaf, but he was less and less so when his listening attention could be awakened indirectly, and after awhile maintained until the smallest sounds could be noticed. There was no lesion at all in the peripheral apparatus. The simple fault was in the absence of attention. There was hysteria, no epilepsy, no onanism, but there was a left inguinal ectopia.

2. A girl of 22 years had been carefully treated several years for the same symptoms. There was no trace of neurosis. The father and mother confessed that their daughter had for years practiced ungovernable masturbation, to which they attributed her deafness. The girl was very intelligent, gay and frank, and presented no signs of habitual onanism, except great failure of memory, and this deafness of the same character and behavior as that in No. 1.

3. A boy of 9 years had a little deafness of less intensity. There was no organic trouble, no functional defect, no nervous waste. But the boy was feeble, poorly developed and of tuberculous stock. The mother drew attention to absence of one testicle.

These three patients alike had complete organic and functional integrity of the peripheral auditory apparatus, but all presented in varying degrees the same absence of auditory attention on both sides

alike. There was no trouble in other functions except memory. Hearing was normal, but not perceived; it was like a photographic negative undeveloped. The attention was forced by a kind of reflex, acting upon a normal auditory apparatus.—*Am. Med.-Surg. Bul.*

Noises in the Head.

"Of the functional defects of the organ of hearing," writes Dr. E. B. Gleason in the *Atlantic Medical Weekly*, July 24, 1897, "tinnitus aurium, or noises in the head, heard only by the individual affected, is an annoyance rivaling in importance the deafness by which it is often accompanied. There are three classes of tinnitus: (1) the pulsating; (2) the continuous, and (3) sounds more or less elaborated, like ringing of bells, music, words, etc., the latter class only being referred to a point outside the head.

"Pulsating tinnitus usually indicates arterial congestion of the middle ear or labyrinth. The differentiation between pulsating and continuous tinnitus may frequently be made by pressure over the carotids or vertebrals.

"Tinnitus due to anæmia may be permanently cured by suitable hygienic measures and tonics. Pulsating tinnitus due to congestion may be alleviated by the exhibition of bromides, and the author prefers dilute hydrobromic acid in doses of from 15 to 60 drops.

"A constant tinnitus usually accompanies the first stages of chronic aural catarrh; as deafness becomes more pronounced the tinnitus often disappears. This form of tinnitus is sometimes relieved by large doses of bromides; in a limited number of cases good results have been obtained by a pill composed of argent. nitrat. gr. $^1/_4$, extr. hyoscyamus gr. $^1/_3$, and strychnia gr. $^1/_{30}$.

"Among the reflex causes of tinnitus are mentioned: The nose, the teeth, or more frequently the digestive tract. Quinine, the salicylates and certain other drugs are capable of producing tinnitus, either as a result of aural hyperæmia or by their toxic action upon the internal ear.

"In lithemia and dyspepsia, accompanied by tinnitus, acids, as, for example, hydrobromic acid, are frequently useful in controlling this annoying symptom. Five drops of concentrated nitro-muriatic in a glass of water after meals sometimes affords speedy relief from head noises by freeing the blood of uric acid.

"The more elaborated subjective sounds heard, as if produced outside the body, are the result of diseases of the ear, acting on at least an easily excitable brain."

Giddiness and Staggering in Ear Diseases.

In giddiness, due to middle-ear disease, Thomas Barr assigns as the cause, pressure applied to the walls of the middle ear. (*British Medical Journal*, May 1, 1897.) Pressure may be caused by inflammatory products—air, water and various fluid medications. In some cases, Meniere's disease, with its train of symptoms, is produced.

Excessive air pressure upon the walls of the tympanum may cause giddiness. Violent blowing of the nose, and thus a consequent access of increased volume of air in the tympanum, may produce these symptoms.

Water entering from the external auditory canal through an existing perforation, to the tympanum, often causes vertigo.

Acoustic Impressions During Chloroform Narcosis.

While operating on a young man for an intestinal polypus, who was already well under the anæsthetic, Berger (*La Med. Scient.; Am. Med.-Surg. Bul.*) observed that creaking of a door caused the patient to go into a state of collapse, thereby compromising, also, the final result of the operation. He seeks to explain this phenomenon by recalling the Carlo-Masso hypothesis, according to which, even during profound chloroform anæsthesia, the nervous centers are not rendered insensible to intense peripheral excitation, a fact which seems to be proved by others observed in surgical practice. Therefore, it must be remembered that the hearing greatly resists the sleep induced by chloroform, acoustic impressions being possible when all the other general voluntary and reflex acts are abolished.

Atresia of the External Auditory Meatus.

Anton (*Therap. Woch.; Pediatrics*) reports a case of this malformation. The child died nineteen days after birth from an attack of pneumonia. Externally the pinna of the ear was found distorted in such a manner that the auricle seemed turned back and partly adhered to the cheek. The opening of the external meatus was indicated by a small slit. In the vicinity of the upper jaw-bone a fissure of the hard and soft palate was noted, and the pyramid of the temporal bone on the deformed side was abnormally small in contrast with that of the normal side. The cartilaginous auditory canal was present, but ended in a blind extremity after a short distance. The ossicles were only rudimentary, but the labyrinth presented normal conditions. The anatomical findings perfectly agreed with those of published cases. The manner in which this deformity is produced finds an easy

explanation in the embryonal arrangement of the auditory canal. As to the time of the occurrence of this deformity, it may be said that this can be traced back to a very early period, as the external organ of hearing is perfectly developed at the end of the second month of embryonal life. Of the etiology only little may be said with certainty. Perhaps inflammatory processes or syphilis should be considered. The practical questions which arise in the consideration of these cases are the hearing power and the probable result of an operation. As far as the power of hearing is concerned, this cannot be determined until a reliable examination for this purpose has been made. The success of an operation, in view of the anatomical findings, must be hopeless.

Earache.

Dr. F. W. Hinkel, of Buffalo, takes up this common but most important subject and considers its significance and early management (*Maryland Med. Journ., Medical Standard*).

The first indication in the early stage of an earache is to procure quiet, physical and mental. Place the patient at once in bed and keep him there, if a child, forty-eight hours at least. Many relapses occur from allowing a restless child to play about the house the next day after an earache. Let a hot foot-bath be given under the bed clothes for its relaxing and revulsive effect.

If a child from 3 to 8 years of age, give morphia sulphate, gr. $^1/_{16}$ to $^1/_{10}$, by the mouth. Let the dose be large enough to be effective and given hypodermatically in older patients. The result sought is not only relief of pain, but to affect the circulation, locally and in general. The opiate may be repeated, if the pain recur or be not controlled, but it should not be continued the second day. There are then surgical means to be used to relieve pain, and at the same time to relieve tension in the tympanum and lessen the danger of mastoid or brain complications.

If the bowels are loaded or the tongue indicates it, give calomel and a saline in robust cases. For two days let the patient have only light diet. See that no erupting or decayed or ulcerated teeth are exciting inflammation in the ear. Let the room be kept at about 68 degrees and the air sweet and somewhat humid.

The local treatment of the early stage of acute catarrhal otitis consists of measures to apply warmth to the parts and to prevent sudden alternations of temperature. Dry hot applications are preferable to moist ones. Let a large pad of wool or absorbent cotton be heated

quite hot and applied over the entire affected side of the head, held in place by a kerchief. In young children the pad can be stitched inside a little cap and effectively held in place.

Occasionally, if the pain continue despite the treatment already suggested, combined heat and moisture give relief. This is best applied by a very gentle stream from a fountain syringe. A quart at least of very hot water should pass steadily and slowly into the auditory canal to the fundus and then escape into a receptacle held below the ear properly. If it relieves pain, it may be repeated as often as indicated.

Avoid the use of all applications about the auricle or within the auditory canal that may ferment or become rancid, such as sweet oil, oil and laudanum, and poultices of any kind. Instillations of laudanum, morphine solutions or cocaine solutions are of doubtful utility, and may be positively injurious in case of rupture of the drum-head.

There is frequently considerable naso-pharyngeal catarrh in these cases. Avoid the use of cleansing sprays or douches the first day or two of the attack. The congestion of the ear is very easily increased by them. A half of one per cent. solution of cocaine muriate in distilled water may be used, if there be, as there often is, much nasal stenosis. This may be followed to advantage by a two per cent. solution of menthol, sprayed lightly into the nose and throat. Warn the patient against blowing the nose violently. Carelessness in this regard may cause a recurrence of the pain. Do not inflate the tympanum at this time by any method. That should be done only under expert advice.

If pain continues unabated or increased on the second day, the ear should be thoroughly examined. Evacuation of the tympanic cavity by free incision of the drum membrane may be needed. If promptly done, this may prevent a prolonged purulent inflammation, with all the dangers it entails to hearing and even life itself. The author sums up as follows:

1. Earache, however slight, may signify disease that, neglected, may terminate in loss of hearing, or even of life itself.

2. Recurring earache in children almost always is associated with lymphoid hypertrophy of the pharynx, and permanent impairment of the function of the ear is prevented only by early surgical treatment of the "adenoids."

3. Acute inflammation of the middle ear may be frequently aborted, if proper treatment—mostly of a general sedative character—be administered early in the attack and with precision.

4. If relief be not obtained by the second day, a thorough exami-

nation of the ear should be made and proper surgical treatment applied to relieve intratympanic pressure and possible involvement of the mastoid cells or intracranial structures. Failure at this stage to obtain as exact knowledge as possible of the condition of the middle ear is criminal negligence.

Operations on the Drum-Membrane and Ossicles for Improvement of the Hearing.

There has been considerable written, pro and con, on the subject of middle-ear operations for the improvement of the hearing. (Edward S. Clark in the *Pacific Medical Record*, July, 1897.) The results have been so varying that some aurists have almost abandoned these operations, while others again, finding more or less benefit in the majority of cases, will operate whenever a patient presents himself, and indications are favorable. These operations may be classified as follows: 1. Operations on the membrana tympani alone. 2. Operations on the ossicles alone. 3. Operations on the membrana tympani and ossicles.

1. *Operations on the Membrana Tympani Alone.*—In cases of deafness with no known cause, when the membrana tympani is apparently normal, the drum-head has been punctured, and in some cases almost entirely removed (without interfering with the ossicles), with results nearly always unsatisfactory. In other cases where the drum-membrane is thickened and opaque, the removal of a small portion of the membrane has been followed temporarily by improvement in the hearing, though permanent benefit is seldom or never obtained.

2. *Operations on the Ossicles Alone.*—When the membrana tympani has been almost or wholly destroyed by chronic otorrhea, the malleus, incus, or stapes, one or all, may be injured by necrosis with adhesions or anchylosis of the articulations. In these cases a prompt removal of one or more of the ossicles will not only cure the otorrhea, but in the experience of the author has invariably improved the hearing. In two cases only, however, has he found it necessary or even possible to remove the stapes. The results were nevertheless equally as satisfactory as in the removal of the other ossicles.

3. *Operations on the Membrana Tympani and Ossicles.*—The removal of the drum-head with malleus or malleus and incus in apparent health is indicated when? Generally, when the drum-head is thickened and opaque, ossicles adherent and immovable, hearing little or nothing, the removal of membrane and ossicles may be advisable. In no case has the author operated when the patient was

able to carry on a conversation at a distance from the ear, greater than 20 centimeters. In 26 cases after operation, hearing was in 1 case 6 meters, 1 case 5 meters, 2 cases 3 meters, 4 cases 1 to 2 meters, 10 cases slight improvement, 6 cases no improvement, and in one case the patient lost all the hearing he previously had. He had been able to converse at 20 centimeters, but after the operation was totally deaf. In more than half the cases, however, there was some improvement. In another condition when the handle of the malleus is adherent to the promontory, the membrana tympani and middle ear otherwise appearing normal, or only slightly thickened, the following operation has been made in 5 cases: 1. An incision is made in the drum-head about 2 mm. in length alongside the manubrium, then a small knife, bent at right angles, is inserted through the opening, and the adhesion is thoroughly separated; then using the knife as a hook, the manubrium is pulled a little outwards to be certain of its motion; the knife is then withdrawn and the ear inflated carefully with the catheter, followed by daily use of the Siegel speculum and catheter for from two to four weeks. The results have been in these five cases very satisfactory. In three the hearing was completely restored. In one case it was improved from 1 meter to 6 meters. The other is still under treatment, and has improved from 0.5 meter to 6 meters, in six weeks, and it is necessary to use the catheter about twice weekly to keep the hearing at 6 meters.

From the above, Dr. Clark regards it the duty of the aurist to consider well the question of operative interference, in all cases of deafness where ordinary means have failed.

Occlusion of the External Auditory Canal and Its Treatment.

Dr. Ernst Vali, Buda-Pesth (*Rev. Int. de Rhin., Otol. et Lar., Ann. Otol., Rhin. and Lar.*, August, 1897), dissents from the opinion commonly held that occlusion of the external auditory canal, particularly congenital occlusion, resists all surgical intervention. In the acquired form the chances for improvement are greater. The vital indication, in occlusion, for operation is the prevention of pus retention (as pointed out by Schwartze).

I. Congenital Occlusions:

The causes are particularly limited to the external parts of the auditory apparatus, and rarely reach the middle or internal ear. In malformations of the tympanum, the membrane and the Eustachian tube, combined with absence of the auricle and occlusion of the external auditory canal, the labyrinth has always been found intact (?). Operation, therefore, presents all chances of success; yet, strange to

say, surgeons and otologists up to the present refuse surgical intervention in these cases, because of its futility. Recently Schwartze admits the possibility of improvement to hearing by operation if a communication can be established and maintained up to the walls of the labyrinth. Attempts have been made to create an artificial external auditory canal, either through the occluding tissues or through the mastoid process (Moos, Ayers, Schwartze, Bolki, Kiesselbach, Krepuska, G. B. Mazzoni).

Report of two cases follows:

(Vali was not content with the result of operation in these cases.)

Schwartze is absolutely in error when he says that operation should depend upon the possibility of re-establishing the hearing. I believe that to be of secondary importance, and that the vital indication (retention of pus) justifies operation in all cases. The operation should be attempted near the obliterated canal. If the external canal is obstructed by a compact osseous mass, we should penetrate into the tympanum by an artificial opening made through the mastoid. (Schwartze first tried this method unsuccessfully; Krepuska's case was very successful.)

Conclusions as to congenital atresia:

1. From the prophylactic point of view, operation is indicated in all cases without restriction (vital indication).

2. The defective development of the temporal is not always the cause of the atresia; therefore the obstruction should be removed by way of the external canal, and the mastoid process attacked only in case of failure.

3. The operation should be performed at an early age.

4. One need not consider whether the hearing is to be improved or not by the operation, this being a secondary consideration.

II. The acquired form is of more frequent occurrence. Either total or partial; of connective or osseous tissue. Occlusion by connective tissue is ordinarily the result of an inflammation near the external auditory canal (parotitis, otitis media or mastoiditis), leading to ulceration and subsequent hyperplasia.

The writer reports three cases.

Conclusions as to acquired occlusion:

1. Operation is indicated in all cases without reserve, even when the obliteration is only partial (in complete occlusion).

2. The removal of the occlusion may produce improvement in hearing.

3. The renewal of the occlusion, by new adhesions, must be prevented, if possible, by means of Thiersch's transplantations.

Hot Water Syringing of the Ear.

Dr. Randall urges and demonstrates (*Philadelphia Polyclinic Med. Standard*) the importance of syringing with water above 105 degrees, especially for the removal of ceruminous masses. In a recent case his attention was called, by an assistant, to a plug which had resisted very persistent syringing, carefully employed. A glance showed large epidermal admixture almost constituting what is called "keratosis obturans," and promising a difficult task; but obtaining water of 109 to 110 degrees, straightening the canal well by traction and throwing a small stream at the most vulnerable points, the mass was swept completely out by the fourth injection of a two-dram syringe. Turning then to another new case with a history of intermittent obstruction for nine months, now for three months total on the left, in which the hard black mass had not been subjected to the least soaking or other treatment, he pointed out that such a prelude was wholly needless and often disadvantageous. The first syringeful was merely instilled, the second gently injected, the third more vigorously used, returned brown stained, and each subsequent two drams brought fragments of the plug, until with the twelfth the last portion, the firm cast of the drumhead, was washed into the cup without causing the slightest pain or dizziness to the patient. The canal and drumhead were found clean and free from redness, and repetition of the procedure on the right side removed a plug apparently identical, but here the invisible crevices which had admitted the air and its sound waves, allowed of easier penetration of the fluid, and two, instead of three, ounces of water sufficed to complete the task.

As cases of impacted cerumen constitute one-seventh of aural practice, it seems well worth while for the practitioner to learn that efficient use of the syringe is not a matter of course, nor beneath his earnest attention; and that water as hot as can be borne is far less likely to disturb his patient, while many times as efficacious as the "warm" water generally advised. Dizziness, or even fainting, must be looked for in any case and the patient warned to announce the first feeling of the sort; but it is least apt to occur when the fluid is hot. Caloric is the most potent addition that can be made to the syringing fluid and can, as a rule, supersede all others, or the undesirable preliminary instillations which are so commonly employed.

Otitic Phlebitis of the Lateral Sinus.

M. Chipault presented to the Academy of Medicine the case of a little girl of 14 years who had suffered from an otitic phlebitis of

the lateral sinus which had been cured by operation a year previously done by M. Lambotte of Anvers (*Sem. Med.; Am. Med.-Surg. Bul.*) The operation was done in three stages, according to the method recommended by Chipault.

1. Double ligature of the internal jugular, with section of the vein between the two ligatures and fixation of the superior end of the vein in the superior angle of the cervical wound.

2. Ligatures of the lateral sinus as near as possible to the torcular herophili.

3. Opening of the sinus and extraction thence of the thrombus; finally, complete disinfection with sublimate solution of the sinuso-jugular passage.

The patient left the hospital completely cured on the seventeenth day after the operation.

A New Method of Treating (by Digestive Ferments) Deafness due to the Sequellæ of Catarrhal and Suppurative Inflammations of the Tympanum.

A most interesting article is contributed by Dr. Cohen-Kypser, of Hamburg, in the *Archives of Otology*, vol. xxvi, No. 2. The author has conducted a series of experiments for the past four years, with various digestive ferments, observing their reaction on the tissues of the patholoiical tympanum. The various changes occurring in chronic catarrh of the middle ear frequently result in the deposit of epithelial shreds, bands and membranes, and other hyperplasias of the connective tissue and mucosa. That form of chronic aural catarrh, designated as the sclerotic type, is the condition which is to be excluded from this form of treatment.

The author employs various solutions of digestive ferments, introduced into the middle-ear cavity for the purpose of promoting a digestion of the hyperplastic material, as well as of the connective tissue products, to dissolve them, if possible, or to discern their size, thus rendering sound conduction more easy. He employs dog's pepsin, in the proportion of 1 to 10,000, as the most satisfactory of the digestive ferments experimented with, claiming for it the best results, because of its rapidity in action.

With reference to its preparation in a suitable solution may be added that the solution must be chemically pure and previously passed through a bacteria filter. The percentage of hydrochloric acid should be of a concentration of a 15 per cent.

The amount of injected fluid is 2 or 3 desigrammes and should be introduced by means of a modified Koch's syringe. The canula of

the syringe has an irregular bend, the needle tapering toward the point, and with a short bevel. To insure steadiness a piece of rubber tubing should connect the bulb to the glass cylinder. In compressing the bulb care should be taken to watch the flow of the solution, so that the entire amount may be inserted into the tympanic cavity. The patient should remain in a recumbent position, with the head turned to the opposite side, for about an hour after the injection. The solution should be employed warm, care being taken to avoid too high a temperature for fear of destroying the pepsin. It is important that the first injection be successful, as excessive irritation might be produced by an early repetition. A second injection should not be made before the lapse of several months. The use of an anæsthetic is often advisable, as the pain is frequently quite severe.

The procedure is simple in cases where suppuration has ceased and a perforation exists. In complete absence of the drum, or when there is a large perforation, a few drops of the solution are sufficient. A plug of cotton is placed in the meatus after the injection to prevent the dissipation of heat. The same procedure is adopted in total adhesion of the drum-head, where puncture and injection are impossible. When the perforation is too small or inconveniently situated, a blunt canula with a bent tip may be used, or a puncture made, posterior to the handle of the malleus. Occasionally the reaction may be accompanied by extensive irritation, but, as a rule, the pepsin solution causes no great pain. Usually the improvement in the hearing is perceptible on the following day. The results, however, are irregular in the time of their appearance. Frequently improvement first manifests itself at the end of about a week, when the conditions accompanying an acute irritation of the drum-head have subsided. Sometimes a decrease in hearing power is noted, but this rarely lasts more than a week. In general, it may be said that the improvement will be the more marked the earlier it appears, and that the chances are more unfavorable the later it shows itself.

The pathological conditions with which we are concerned in this method are the hypertrophic processes and consecutive tissue formations, particularly about the ossicles and their attachments. The treatment is only indicated in cases in which whispered speech is still heard near the ear. The results show improvement in about two-thirds of the cases. The treatment should only be adopted when other methods employed for the relief of these conditions have failed. Of one hundred and fifty cases of such forms of chronic catarrh treated the number which showed improvement was more than two-thirds of the total number treated.

A Case of Hemorrhage from the Carotid in Necrosis of the Middle Ear—Operation.

Abbe (*Pediatrics*, September 1, 1897, *Treatment*) reports the case of a child two and a half years of age, which for the space of one year was afflicted with a fœted otorrhœa. A profuse bleeding suddenly occurred from the diseased ear without any known cause, and seemed to be due to an erosion of the lateral sinus, secondary to a necrosis of the temporal bone. The jugular vein was tied, the sinus opened, and a tampon applied. After two days the patient died. At the autopsy the carotid artery was found to be plugged by a thrombus of septic origin, which obviously had caused an embolus to lodge in the middle cerebral artery, and thus had been the cause of the cerebral abscess and necrosis of the cerebral tissues. In the tympanic cavity was found a small sequestrum, seemingly a part of the semi-circular canal, lying in contact with an erosion at the bend of the carotid. It occupied about one-third of its circumference.

Facial Nerve Affected by Ear Disease.

Dr. M. S. Tompka (*Revue Hebd. de Laryng.*, *American Med.-Surg. Bul.*), gives two anatomical modifications which favor affection of the facial nerve in ear diseases, viz., dehiscence of the Eustachian tube and the stylo-mastoid artery. The otogenic causes of paresis are:

1. Colds which are limited to the head or ear.

2. Local affections of the ear, such as (a) reflex paralysis due to outer-ear and auditory-ear, (b) conditions found in middle-ear diseases; serous or mucous catarrhs; acute or chronic purulent inflammation of the tympanum; caries of the temporals, which is one of the most frequent causes, especially when it is accompanied by a complete necrosis of the labyrinth and caries of the wall; scalatinal, diphtheritic, tubercular, typhic or syphilitic middle-ear affections or leucemia.

3. Traumatisms, chemical and thermic.

4. Neoplasms of the auditory canal; polypi, sarcomata, etc.

5. Tumors of the face and brain. Hyperostosis penetrating into the internal canal and involving the facial nerve.

The progress is more favorable in acute than in chronic cases. The persistence of the normal electrical reaction of the nerve indicates a favorable prognosis.

Visual Aid in the Oral Teaching of Deaf-Mutes.

An interesting scientific point has been raised by A. Farrar, Jr. A test for the pitch of a musical note has been provided in the shape

of a pinch of fine powder sprinkled over a sheet of glass. When the glass is struck by the vibrations of musical sounds the particles of the powder on its surface assume all manner of beautiful designs—many of them resembling the branches of trees, flowers or birds—according to the note given. It has also recently been found possible to give a graphic representation of the human voice by photographing on a highly magnified scale the indentation made by the stylus of the phonograph on the waxen recording cylinder. The difference in voice production, as thus shown, is astonishing, and any departure from perfect smoothness of tone is at once seen in the increasing ruggedness of the indentations. It has been proposed to utilize this system of "seeing the voice" in vocal schools by a regular method of comparison of the records of pupils with those of eminent artists. The question of the practical application of such visual reproductions in the oral education of the deaf has also been frequently mooted, but in neither case has any useful result so far accrued. As is well known, the speech of orally educated deaf-mutes is not usually so natural, and hence not so easily understood as that of those who hear. This is chiefly due to the absence of the controlling action of the hearing. If this could be supplied by visual means much might be accomplished. Mr. Farrar suggests that physicists should take up this question, with a view to devising simple and efficient apparatus by which an orally taught deaf-mute could test his speech to ascertain how far it corresponded in inflection, etc., with that of his teacher or other hearing person, and could regulate it accordingly. The invention of such a device would confer a great practical boon on both the deaf and their teachers.—*Ex.*

Bell's Palsy and its Electro-Therapeutics.

A review of forty cases of peripheral facial paralysis, seen in the electrotherapeutic department of the Salpêtrière of Paris, is cited by W. S. Hedley in *Treatment*, July 8, 1897.

The causes as enumerated are: Tumor, 1; injury, 3; syphilis, 5; erysipelas, 1; otitis, 4; cause undetermined, 9; *a frigore*, 17. The greater frequency in women is attributed to the absence of the protection afforded by the beard. Another series of cases is cited in which much stress is laid upon the family history of the patients, indicating a weakness, hereditary or acquired, of the nervous tissue.

The probable duration of this form of paralysis of the facial nerve may be foretold with some accuracy by means of electrical exploration. "Recovery may be hastened by electrical treatment, and in severe forms the incurableness of the affection may be prevented, com-

plete restoration of function promoted, and the onset of contracture and spasm combatted." The effect of the continuous current in increasing the excitability of muscles is strikingly seen in the improved ability to close the eyes immediately after galvanization. *The electro-therapeutic formula* may be given as follows: Place one electrode (anode) having a diameter of 1½ inches over the auriculo-mastoid fossa of the affected side; the other electrode, 2x2, in the corresponding position on the sound side. Use a continuous current stabile, intensity 2 to 4 m.a., duration two minutes. Make and break very gradually. *Peripheral* treatment: Apply one electrode (anode) 2x2 behind the affected ear. The other eloctrode ¾ in diameter is used labile over the affected muscles in the direction of the ramifications of the plexus anerinus, intensity 3—4 m.a., duration three to four minutes. The movement of the electrode is in a circular direction over the orbicularis palpebrarum. Strong Faradisation has been blamed, and probably with justice, for inducing contracturé.

Census of the Deaf.

According to the eleventh census, the total number of deaf and dumb persons in the United States was 41,283; of these 22,783 were males and 18,500 females. Of this number 38,158 were white, 3,929 native born, 4,229 foreign born, 3,125 colored; of whom 1,775 were males and 1,350 females. Mulhall's statistics of this class contain figures gathered no later than 1871, and at that date there were of these unfortunates in Great Britain 19,237; France, 21,130; Germany, 30,900; Austria, 34,450; Italy, 9,800; Spain, 10,700; Switzerland, 6,828; at the same date, or by the ninth census, the United States had but 18,150. It is the observation of Mulhall and other statisticians that this class increases at a ratio greater than that of the increase in population. There are many points of similarity between the sign language employed in Europe by the deaf and dumb and that in use in this country, though, of course, there is also wide variance in minor detail.

Valvular Action of the Eustachian Tube.

In a case exhibited by Gompertz before the Austrian Otological Society (reported in *Journal of Laryngology*, Oct., 1897), a very important point in connection with the physiology of the Eustachian tube and tympanum is illustrated. The superior half of the membrane in general, and the postero-superior quadrant in particular, bulged to a very remarkable degree. Gompertz attributes this to overfilling of the tympanum with air, owing to a pumping action of the Eustachian tube, as if by a kind of vermicular movement air was carried up the tube into the cavity of the drum. This would result from the following mechanism:

If the tube, having gaped more or less in its whole extent, closed first at its pharyngeal extremity, and then in the remainder of its length from within outwards, air would be carried into the tympanic cavity so rapidly as to produce over-distension. Physiologically, this takes place within certain limits, and we are bound, with Secchi (Roman Congress, *Journ. Laryng.*, VIII, p. 405), to admit that without some degree of distention of the tympanum, the convexity of the radial fibres of the membrane pointed out by Helmholtz cannot be explained.

Under abnormal circumstances, such as the nasal disease found in Gompertz' cases, the process becomes exaggerated and a most puzzling appearance of the membrane is produced. D. G.

The Functions of the Cochlea.

Dr. Hammerschlag, at the last annual meeting of the Austrian Otological Society, in the discussion of this subject, draws fairly convincing conclusions.—*Journal of Laryngology*, October, 1897.

He adduces arguments in favor of the view that the hearing of a musical tone depends on the setting into vibration of a few fibres of the basilar, while for noise the whole set of fibres are more or less shaken up. On the assumption that the hearing of low tones is a more delicate function than that of high ones, he holds that when the auditory nerve trunk as a whole is affected in an incompletely destructive lesion the finer function is the one most readily and soonest impaired. Hence in such a lesion of the trunk there is "nerve deafness" with diminished hearing for the lower tones. In the labyrinth, on the other hand, the most vulnerable part is the lower turn, which is believed to subserve hearing for the higher tones. When, then, with nerve deafness the loss of hearing is chiefly for such tones, we may assume that the lesion is in the cochlea. These views afford interesting confirmation of those of Gradenigo, which have been frequently cited. D. G.

PRESCRIPTIONS.

Red-Gum Gargle.

℞ Kali. chlorat. ..... ℥ii.
Aq. bull. ..... ℥iv.
Alumin. pulv. ..... ℥ii.
Aq. rosæ fort. ..... ℥xxi.
Glycerine ..... ℥iv.
Syrupi ..... ℥iv.
Fl. extr. eucalyptus rostrata (red gum) ..... ℥iii.

M.: Dissolve the potassium chlorate in boiling water, cool and reserve. Dissolve the alum in the stronger rose water, add the glycerine, syrup and fluid extract of red gum in the order named; then add to potass. chlorat. solution.

Sig.: Add to an equal quantity of water and gargle every three or four hours.—ENGLAND, in *Phila. Polyclinic.*

Hoarseness.

℞ Liq. ammoniæ ..... ♏ . xl.
Syr. hedge-mustard ..... ℥vi.
Infus. linden flor. ..... ℥x.

M. S.: Tea to tablespoonful, as required.

NOTE.—This syrup is known in France as "*Foreau's Syrup.*" Foreau was physician to the Emperor Napoleon, and was frequently compelled to prescribe it, as Bonaparte was very subject to sudden attacks of hoarseness.—*National Druggist.*

Lœffler's Diphtheria Solution.

℞ Menthol ..... grms. 10
Toluene ..... q. s. ad. c.c. 26
Creolin ..... c.c. 4
Alcohol ..... q. s. ad. c.c. 100

M. S.: Saturate cotton swab in solution, squeeze out excess, and apply for ten to fifteen seconds to membrane. Applications to be made every three hours.

BOOKS AND PAMPHLETS RECEIVED.

The Progress of Laryngology and Rhinology. By St. Clair Thomson, London. Reprint, *British Medical Journal*, June 19, 1897.

Tuberculosis of the Tonsils, Pharynx and Larynx. By L. S. Somers, Philadelphia. Reprint, *Med. and Surg. Reporter*, May 29, 1897.

Troubles Nerveux, en rapport avec les Maladies de l'Oreille. By A. Foucher. Reprint, *L'Union Medicale du Canada.*

Adductor Vocal Paralysis. By L. S. Somers. Reprint, *Medical News*, June 26, 1897.

Pemphigus Chronicus Vulgaris of the Mouth and Epiglottis. By Lewis H. Miller, Brooklyn. Reprint, *N. Y. Med. Jour.*, July 3, 1897.

The Influence of Diseases of the Nares and Pharynx on Aural Affections: A study of six hundred cases of middle-ear disease. By L. S. Somers. Reprint, *University Med. Mag.*, August, 1897.

Headache from Nasal Causes. By Sargent F. Snow, Syracuse, N. Y. Reprint, *Med. News*, July 10, 1897.

A case of Chronic Ulcerative Tuberculosis of the Fauces and Larynx—Possibly Primary. By Richmond McKinney, Memphis, Tenn. Reprint, *Memphis Med. Month.*, September, 1897.

NEWS ITEMS.

The American Pediatric Society

Is making a Collective Investigation of Infantile Scurvy as occurring in North America, and earnestly requests the co-operation of physicians, through their sending of reports of cases, whether these have already been published or not. No case will be used in such a way as to interfere with its subsequent publication by the observer. Blanks containing questions to be filled out will be furnished on application to any one of the committee. A final printed report of the investigation will be sent to those furnishing cases.

The Committee consists of: J. P. Crozer Griffith, M. D., Chairman, 123 S. 18th St., Philadelphia; William D. Booker, M. D., 853 Park Ave., Baltimore; Charles G. Jennings, M. D., 457 Jefferson Ave., Detroit; Augustus Caille, M. D., 753 Madison Ave., New York City; J. Lovett Morse, M. D., 317 Marlboro St., Boston.

Western Medical and Surgical Gazette.

This new aspirant in the field of medical journalism, hailing from Denver, Colo., is announced, under the editorship of Drs. Wm. N. Beggs and Lincoln Mussey.

Our personal acquaintance with the editors supports us in the prediction of a bright future and of an ably managed journal.

Throat, Ear and Eye Section of the Cuyahoga County Medical Society.

The annual meeting of the Throat, Ear and Eye Section of the Cuyahoga County Medical Society, was held Tuesday evening, Oct. 5th, at Cleveland, O.

The following officers were elected for the ensuing year: Dr. C. W. Smith, President; Dr. J. M. Ingersoll, Vice-President; Dr. Wm. E. Shackleton, Secretary and Treasurer.

The Section numbers about thirty active members, and meets monthly during the winter. Many interesting specimens and patients have been presented to the Section, and the discussions have covered such a wide range of subjects that many practitioners, not actively engaged in special practice, have found it profitable to attend the meetings of the Section.

Removals.

Dr. Clarence R. Dufour has removed to 1016 14th St., Washington, D. C.

Dr. Emma E. Musson has removed to 258 S. 16th St., Philadelphia, Pa.

Dr. J. Barnhill has removed to 412 N. Delaware St., Indianapolis, Ind.

SYR. HYPOPHOS. CO., FELLOWS

Contains the Essential Elements of the Animal Organization—Potash and Lime;

The Oxidising Agents—Iron and Manganese;

The Tonics—Quinine and Strychnine;

And the Vitalizing Constituent—Phosphorus; the whole combined in the form of a Syrup with a **Slightly Alkaline Reaction.**

It Differs in its Effects from all Analogous Preparations; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic, and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, *finds that no two of them are identical,* and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, *in the property of retaining the strychnine in solution,* and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. *Fellows.*"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

Medical Letters may be addressed to:

Mr. FELLOWS, 48 Vesey Street, New York.

Lactophenin

Lactyl-para-phenetidin: $C_6H_4<^{OC_2H_5}_{NH.CO\ CH(OH)CH_3}$

Dose for Adult, 4 to 8 grains, increased when necessary, in powders, tablets, pills, wafers or capsules.

Supplied in Powder form, in one ounce boxes; and in Tablets, of 4 and 8 grains each, in one ounce boxes.

Antipyretic. Analgesic. Sedative.

Pain and its Therapeusis.—Dr. S. V. Clevenger, after pointing out the disadvantages of various analgesic drugs, states that Lactophenin is destined to supersede largely the entire array of analgesics proper, owing to its non-toxic peculiarities and the feeling of comfort described by many physicians as following its use. It affords the best results with the least ill effects.

Its range of incompatibility is less than other synthetic compounds, and it may be combined with caffeine, quinine, and salicylic acid. The minimum dose of 5 to 10 grains may be increased until a daily maximum of 45 grains has been reached. It is but slightly soluble in water, although acting promptly, so that it can be given dry and be washed down with a drink of water. A dose of 15 grains usually acts as a feeble hypnotic. There are no untoward symptoms following its use, and, contrary to the experience with some synthetic drugs, the pulse becomes fuller and stronger under its use. The range of application is extensive, and the testimony of the author is in corroboration of the findings of other physicians as to its superior analgesic effects, its safety and promptness of action.—R. W. Wilcox, M. D., in *Am. Jour. of the Med. Sciences*, May, 1897, quoting from *Jour. of the Am. Med. Ass'n*, 1897, No. 5, p. 173.

Recent Clinical Reports:

Dr. Beverly Drake Harrison,
"Treatment of Typhoid Fever,"
in *The Physician and Surgeon*,
Nov., '96.

Dr. J. Homer Coulter,
"Qumsy, Diagnosis and Treatment,"
in *The Journal Am. Med. Ass'n*,
Nov. 7, '96.

Dr. Chas. S. Potts,
"Clinical Notes on the Analgesic Effect of Lactophenin,"
in *The Therapeutic Gazette*,
Jan., '97.

Dr. S. V. Clevenger,
"Pain and Its Therapeusis,"
in *The Journal Am. Med. Ass'n*,
Jan. 30, '97.

Dr. Geo. H. Thompson,
"Observations on Lactophenin,"
in *The Tri-State Medical Journal*,
May, '97.

Dr. A. H. Roler,
"Clinical Notes on Lactophenin,"
in *Chicago Medical Recorder*,
July, '97.

Clinical Reports Furnished on Request.

C. F. Boehringer & Soehne, 7 Cedar St., New York.